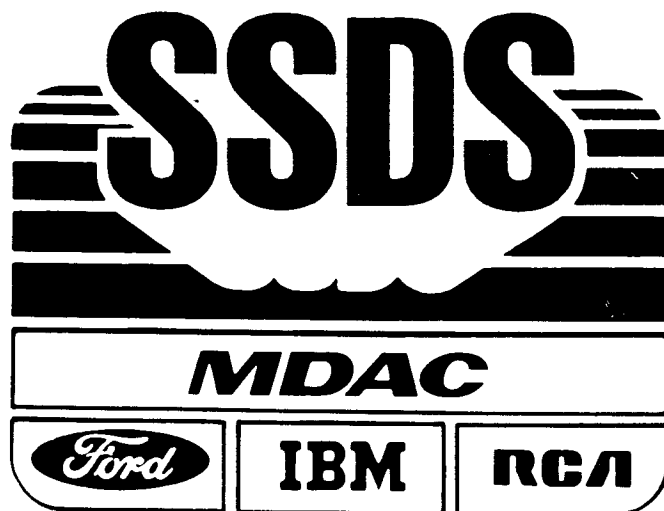


177847



SPACE STATION DATA SYSTEM ANALYSIS/ARCHITECTURE STUDY

Task 1 – Functional Requirements Definition, DR-5

Appendix – Requirements Data Base

(NASA-CR-177847) SPACE STATION DATA SYSTEM

N86-20478

ANALYSIS/ARCHITECTURE STUDY. TASK 1:
FUNCTIONAL REQUIREMENTS DEFINITION, DR-5.

APPENDIX: REQUIREMENTS DATA BASE

(McDonnell-Douglas Astronautics Co.) 559 p G3/18 04595

Unclas





**SPACE STATION DATA SYSTEM
ANALYSIS/ARCHITECTURE STUDY**

Task 1 – Functional Requirements Definition, DR-5

Appendix – Requirements Data Base

DECEMBER 1985

MDC H1343A
REPLACES MDC H1343
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MCDONNELL DOUGLAS ASTRONAUTICS COMPANY-HUNTINGTON BEACH

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PREFACE

The McDonnell Douglas Astronautics Company has been engaged in a Space Station Data System Analysis/Architecture Study for the National Aeronautics and Space Administration, Goddard Space Flight Center. This study, which emphasized a system engineering design for a complete, end-to-end data system, was divided into six tasks:

- Task 1. Functional Requirements Definition
- Task 2. Options Development
- Task 3. Trade Studies
- Task 4. System Definitions
- Task 5. Program Plan
- Task 6. Study Maintenance

McDonnell Douglas was assisted by the Ford Aerospace and Communications Corporation, IBM Federal Systems Division and RCA in these Tasks. The Task inter-relationship and documentation flow are shown in Figure 1.

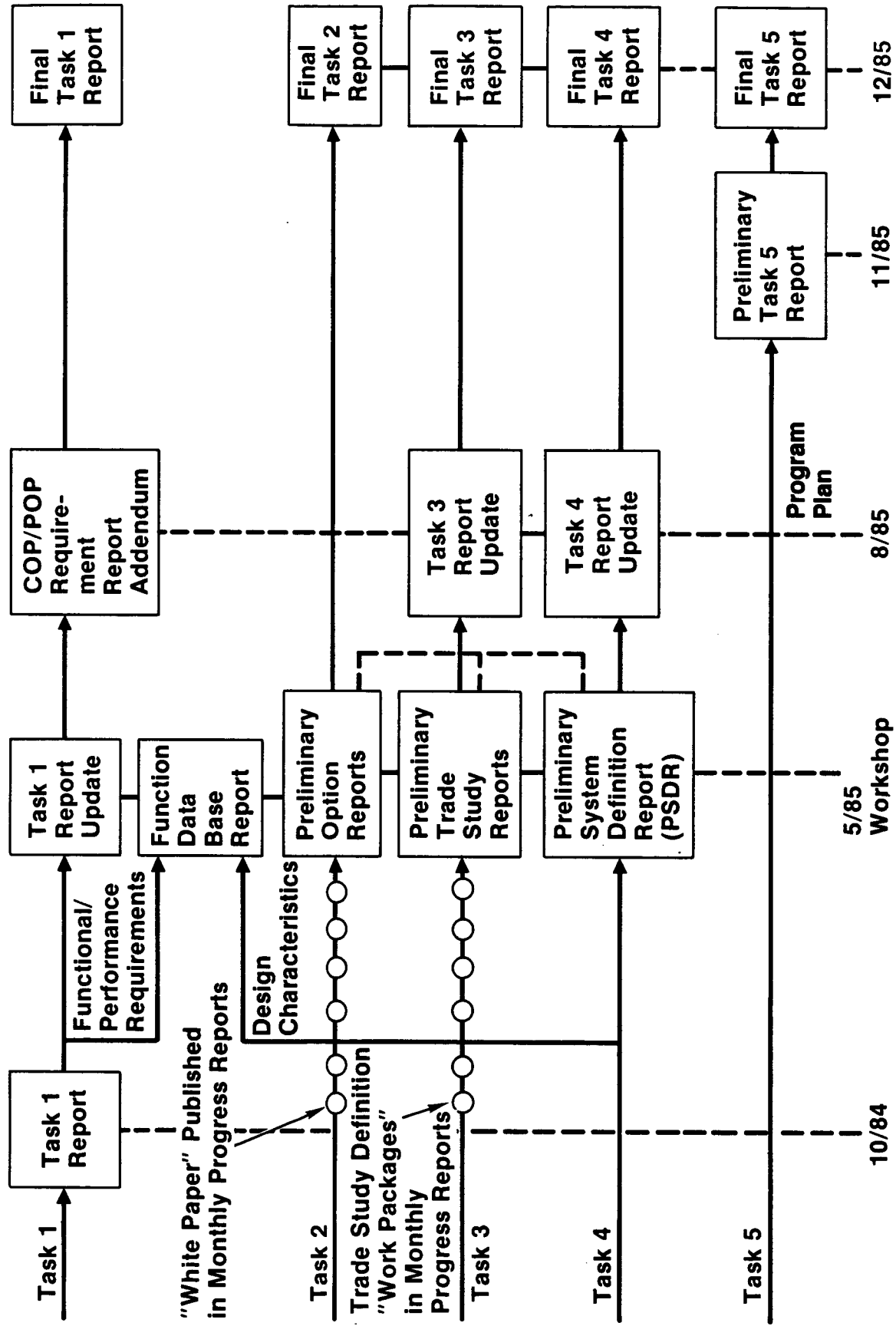
This report was prepared for the National Aeronautics and Space Administration Goddard Space Flight Center under Contract No. NAS5-28082

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Figure 1

SSDS A/A DOCUMENTATION SCHEDULE



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Appendix A
Requirements Data Base

INTRODUCTION

- Appendix A contains data that characterizes the functions in sufficient depth as to determine the requirements for the Space Station Data System (SSDS). This data is in the form of:
 - 1) Top down traceability report
 - 2) Bottom up traceability report
 - 3) Requirements data sheets
 - 4) Cross index of requirements paragraphs of the Source documents and the requirements numbers
- Section A-2 contains a data base users guide that interested parties can use to access the requirements data base and get up to date information about the functions.
- Section A-3 contains a glossary of all source documents and abbreviations used in appendix A.
- Section A-4 contains the derived functions list
- Section A-5 contains the top down traceability report
- Section A-6 contains the bottom up traceability report
- Section A-7 contains an explanation of the data sheet fields.
- Section A-8 contains a directory of the function sheets entered into the data base.
- Section A-9 contains the requirement data sheets
- Section A-10 contains the cross index of the Source document paragraph numbers to the requirement numbers
- Section A-11 contains the SSDS Task 1 Report Comment, Action/Status Disposition Log

Appendix A-2
Data Base Users Guide

DATA BASE USERS GUIDE

The requirements data base is resident on a VAX computer at McDonnell Douglas in Huntington Beach, CA. The data base access routine is a menu-driven service which provides the user with an up-to-date function directory (Appendix A-8) and function reports (Appendix A-9). The data base is accessible from off-site terminals and the access procedures will be distributed to authorized users.

Appendix A-3

Glossary of Source Documents and Abbreviations

The abbreviations and definitions contained in this Glossary are meant to help the reader understand the entries in the Requirements Data Base. They are not meant to become standardized abbreviations.

INFORMATION REFERENCES

<u>DATA SOURCE ABBREVIATION</u>	<u>REFERENCE</u>
1) RFP	"Space Station and Preliminary Design", NASA JSC RFP 9-BF-10-4-01P, September 15, 1984 (reference 1)
2) CRSS	"Customer Requirements for Standard Services from the Space Station Information System (SSIS)", NASA GSFC Space Station Office, Revision 1, September 19, 1984 (reference 2)
3) MRWG	"Space Station Program Mission Requirements", Space Station Task Force Mission Requirements Working Group and NASA LaRC, Computerized Data Base, May 1984 (reference 3)
4) NASA TM58248	"Medical Operations and Life Science Activities on Space Station", NASA JSC, October 1982
5) NASA TM58255	"Space Station Medical Sciences Concepts", NASA JSC, February 1984
6) JPL-D-1737	"Space Station Information System Final Study Report", NASA JPL, August 1984 (reference 9)

7) JSC 18740

"E&D Subsystem Definition Study for
Space Station", NASA JSC, December
1982 (reference 7)

8) YEL BK 3

"System Requirements and
Characteristics -- Space Station Task
Force", NASA-HQ, March 1984

GLOSSARY

ABBREVIATION	DEFINITION
=====	=====
AIR TEMP	AIR TEMP AND ATM COMP SENSORS
AIR TOX	AIR TOXICITY SENSORS
AIRCIRC	AIR CIRCULATION SYSTEM
AIRLKCTL	AIRLOCK ATMOSPHERE CRTL
AIRLOCK	AIRLOCK
AIRMAKUP	AIR MAKEUP
ALIGN S	ALIGNMENT SENSORS
ATM CTL	ATMOSPHERE REVITALIZATION TEMP CTRL
AUTHENT	AUTHENTICATION
AV SYST	GUIDANCE, NAVIGATION, AND CONTROL SYSTEMS
C/O PROC	CHECKOUT/SERVICES PROCEDURES
C/T STAT	COMM AND TRACKING STATUS
CABNPRES	CABIN PRESSURE SENSORS
CAP DATA	CAPTURED CUSTOMER DATA
CHARGER	CHARGER
CHRG/REG	ARRAY/REGULATOR SYSTEM
CMD DICT	COMMAND DICTIONARY
CMFILE	COMMAND FILE
CMG	CONTROL MOMENT GYROS
CMMD LOG	COMMAND LOG
CMONITOR	COMMUNICATION MONITOR
COMEQUIP	COMMUNICATION EQUIPMENT
COMM I/F	COMMUNICATION INTERFACE
COMMSTAT	COMMUNICATION EQUIP. STATUS
COMMSYST	COMMUNICATION SYSTEMS
CONSTI/F	CONSTELLATION INTERFACE
CONTAMSR	CONTAMINATION SENSOR
COOL CTL	COOLANT FLOW CONTROL
CORE OPR	CORE OPERATOR
COREBUFF	CORE DATA BUFFER
CORESTAT	CORE STATUS
CORESYST	CORE SYSTEMS
CREW	CREW
CREWSTAT	CREW STATUS
CREWTASK	CREW TASKS
CUST I/F	CUSTOMER INTERFACE
CUST INV	CUSTOMER INVENTORIES
CUST RDC	CUSTOMER REGIONAL DATA CENTERS

CUST/OPR	CUSTOMER/OPERATOR
CUSTCMDS	CUSTOMER COMMANDS
CUSTCONT	CUSTOMER/CONTRACTOR
CUSTOMER	CUSTOMER
CUSTOP C	CUSTOMER/OPERATOR/CONTRACTOR
DATAACCT	DATA ACCOUNTING
DATAHAND	DATA HANDLING
DELAYDAT	DELAYED DATA
DELAYP/L	DELAYED PAYLOAD DATA
DEV STAT	DEVELOPMENT FACILITIES STATUS
DHC STAT	DATA HANDLING CENTER FACILITY STATUS
DST FAC	DEVELOPMENT SIMULATION TRAINING FACILITIES
ECLSS	ENVIRONMENTAL CONTROL & LIFE SUPPORT
ECLSSTAT	ECLSS STATUS
EMU	EXTRAVEHICULAR MOBILITY UNIT
ENERGYST	ENERGY STORAGE UNITS
ENGR CTR	ENGR REGIONAL DATA CENTER
ENGRDATA	ENGR DATA ARCHIVE
ENV SENS	ENVIRONMENT SENSORS
ENVIRON	ENVIRONMENT
EPHEMER	EPHEMERIDES
EPHTIME	EPHEMERIDES TIME
EVA CREW	EXTRAVEHICULAR ACTIVITY CREW
EVA STAT	EVA STATUS
FAC STAT	FACILITIES STATUS
FAMILY	CREW FAMILIES & FRIENDS
FIRE CTL	FIRE CONTROL SYSTEM
FIREDECT	FIRE DETECTORS
FL LOOPS	BUS AND RADIATOR FLUID LOOPS
FLT PROC	FLIGHT DATA PROCESSING EQUIP
FLT STAT	FLIGHT FACILITIES STATUS
FLUIDCTL	BUS AND RADIATOR FLUID CTRL
FUEL DEP	FUEL DEPOT(S)
GNC STAT	GUIDANCE, NAVIGATION & CONTROL STATUS
GND CUST	GROUND CUSTOMER
GND OPR	GROUND OPERATOR
GNDF INV	GROUND FACILITY INVENTORIES
GPS TRAK	GLOBAL POSITIONING SYSTEM TRACKER
GREYWATR	GREY WATER SYSTEM
H/W S/W	HARDWARE AND SOFTWARE FOR INTEGRATION
HTEMPCTL	HIGH TEMP COOLANT CTRL
HUMIDITY	HUMIDITY SENSORS
INVENTORY	INVENTORIES
L/R TRAK	LONG RANGE TRACKER
L/T ARCH	LONG TERM ARCHIVE
LOG OPER	LOGISTICS OPERATOR
LOG PLAN	LOGISTICS PLAN
LTEMPCTL	LOW TEMP COOLANT CTRL
MAGMETER	MAGNETOMETERS
MAGTORQ	MAGNETIC TORQUERS
MAINTLOG	MAINTENANCE LOG
MAJEVENT	MAJOR EVENT OPERATIONS
MANUALS	MANUALS
MASSPROP	MASS PROPERTIES CONFIGURATION

MATL USE	MATERIALS USAGE
MECH	MECHANISMS
MMU	MANNED MANEUVERING UNIT
MODESENS	MODE SENSORS
MODESTAT	MODE STATUS
MONITORS	MONITORS
MRMS	MOBILE REMOTE MANIPULATOR SYSTEM
MSTRPLAN	MASTER PLAN
NASA	NASA/CONTRACTOR/CUSTOMER CONTROL BOARDS
NAVSTATE	NAVIGATION STATE/ATTITUDE
NCC	NETWORK CONTROL CENTER
NONAVSYS	NON-GN&C CORE SYSTEM
NORAD	NORTH AMERICAN AIR DEFENSE COMMAND
NORM OPS	NORMAL DAY OPERATIONS
NSTS CTL	NATIONAL SPACE TRANSPORTATION SYSTEM MISSION CONTROL
NTWKPLAN	NETWORK PLAN LINK PRIORITIES
NUSTFCST	NAVIGATION STATE FORECAST
OBJ/COFL	OBJECT/CO-FLIER
OBJSTATE	OBJECT STATES
OFF SITE	OFF-SITE CUST/CONTRACTOR SYSTEM
OMV I/F	ORBITAL MANEUVERING VEHICLE COMMUNICATION INTERFACE
OMV STAT	ORBITAL MANEUVERING VEHICLE STATUS
OMVBERTH	ORBITAL MANEUVERING VEHICLE BERTH
OMVOTVIF	OMV, OTV, CONSTELLATION INTERFACES
ONBD OPR	ONBOARD CUSTOMER/OPERATOR
ONSITEHW	ONSITE CUST/CONTRACTOR H/W
OPERATOR	OPERATOR
OPEVENTS	OPERATING EVENTS SCHEDULE
OTV I/F	ORBITAL TRANSFER VEHICLE COMMUNICATION INTERFACE
OTV STAT	ORBITAL TRANSFER VEHICLE STATUS
OTVBERTH	ORBITAL TRANSFER VEHICLE BERTH
OX LEVEL	CABIN OXYGEN LEVEL
P/L IFHX	PAYLOAD SIDE INTERFACE HEAT EXCHANGE
P/L OPS	PAYLOAD OPERATIONS
P/L STAT	PAYLOAD STATUS
P/LCONST	PAYLOADS AND CONSTELLATION ELEMENTS
P/LCSTIF	PAYLOADS, OTV, OMV, AND CONSTELLATION INTERFACE
PALLET	PALLET
PHYS MON	PHYSIOLOGICAL MONITOR
PNTG MNT	ANTENNAS, POINTING MOUNT, RADIATORS
POP/COP	POLAR AND CO-ORBITING PLATFORMS
PORT	DOCKING PORT
POT SUPL	POTABLE WATER SUPPLY SYSTEM
PREPROC	PREPROCESSED DATA BUFFER
PRESCOMP	AIR PRESSURE & COMPOSITION SENSORS
PRIORITY	PRIORITIES
PROC RES	DATA PROCESSING RESOURCES
PROCEDUR	PROCEDURES
PROGLANG	PROGRAMMING LANGUAGE
PROXTRAK	PROXIMITY TRACKER
PWR STAT	POWER SYSTEM STATUS
PWR SYST	POWER SYSTEM
PWRSWTCH	POWER SOURCE CONFIGURATION SWITCH GEAR
R/T BUFF	REALTIME DATA BUFFER

RADIATOR	RADIATORS
RATEGYRO	RATE GYROS, STAR TRACKER
RAW DATA	RAW DATA BUFFER
RCS	REACTION CONTROL SYSTEM
RDC OPR	REGIONAL DATA CENTER OPERATORS
RECONFIG	RECONFIGURATION PROCEDURE
RECREATN	RECREATION
RECUOPS	RECURRING OPERATIONS
S/T ARCH	SHORT TERM CORE ACRHIVE
SAT CTRS	SATELLITE CENTERS
SAT STAT	SATELLITE FACILITIES STATUS
SHORTSCH	SHORT TERM SCHEDULE
SIMMODEL	SIMULATION MODELS
SLRARRAY	SOLAR ARRAY
SOFTWARE	GENERAL PURPOSE SOFTWARE
SS P/L	SPACE STATION PAYLOAD
SSCCPROC	SPACE STATION CONTROL CENTER DATA PROCESSING EQUIPMENT
SSCCSTAT	SPACE STATION CONTROL CENTER FACILITY STATUS
SSCONFIG	SPACE STATION CONFIGURATION
STARCATL	STAR/OBJECT CATALOG
STARTRAK	STAR TRACKER
STAT INV	STATION INVENTORIES
STR MECH	STRUCTURES/MECHANISMS SENSORS/EFFECTORS
STRUCT	STRUCTURES, SYSTEMS
SWDOCF	SOFTWARE DOCUMENT FILE
SWELMO	SOFTWARE ELEMENTS AND SIMULATION MODELS
SWITCHGR	LOAD SWITCH GEAR
TASKSTAT	TASK STATUS LOG
TCS STAT	THERMAL SYSTEM STATUS
TDRSS	TRACKING AND DATA RELAY SATELLITE SYSTEM
TECH DOC	TECHNICAL DOCUMENTS
TELTABLE	TELEMETRY TABLE
TEMP/HUM	AIR TEMP & HUMIDITY SENSORS
TEMPSTOR	12 HOUR/2 WEEK ARCHIVE
TETHER	TETHER SYSTEM
TETHSTAT	TETHER STATUS
THERMCAP	THERMAL CAPACITORS
THERMCTL	THERMAL CONTROL SYSTEMS
TIMEFREQ	TIME FREQUENCY SOURCES
TMIS	TECHNICAL AND MANAGEMENT INFORMATION SYSTEM
TRAKSENS	TRACKING SENSORS
TRAKSTAT	TRACKING STATUS
TRNHIST	TRAINING HISTORY
TRNINST	TRAINING INSTRUCTOR
WASTE AN	WASTE/BLOOD ANALYSIS

Appendix A-4
Derived Function List

FUNCTION LIST

		VEHICLE/SYSTEM ASSIGNMENT			
		STATION	COP	POP	COMMON
1.0	Manage Customer/Operator Delivered Data	->			
1.1	Manage Real Time Data Return	->	X	X	
1.1.1	Acquire Realtime Data	->	X	X	
1.1.2	Prioritize Realtime Data	->	X	X	
1.1.3	Monitor Realtime Data	->	X	X	
1.1.4	Dispatch Realtime Data	->	X	X	
1.1.5	Format Realtime Data	->	X	X	
1.2	Manage Delayable Data Return	->	X	X	
1.2.1	Acquire Delayed Payload Data	->	X	X	
1.2.2	Prioritize Delayed Data	->	X	X	
1.2.3	Monitor Delayed Data	->	X	X	
1.2.4	Dispatch Delayed Data	->	X	X	
1.2.5	Format Delayed Data	->	X	X	
1.3	Data Distribution	->			X
1.3.1	Preprocessing	->			X
1.3.2	Data Capture	->			X
1.3.3	Routing and Transmission	->			X
1.3.4	Quality Verification	->			X
1.4	Manage Deliverable Customer Data	->			X
1.4.1	Customer-Data Interface Mgt	->			X
1.4.2	Customer Data Capture	->			X
1.4.3	Customer Data Handling	->			X
1.4.4	Ancillary Data Acquisition	->			X
1.4.5	Level 0 Customer Data Processing	->			X
1.4.6	Customer Data Accounting	->			X
1.4.7	Routing and Transmission	->			X
1.5	Manage Deliverable Core Data	->	X	X	
1.5.1	Core Data Interface Management	->	X	X	
1.5.2	Core Data Capture	->	X	X	
1.5.3	Data Extraction	->	X	X	
1.5.4	Displays and Controls	->	X	X	
1.5.5	Engineering Data Analysis	->	X	X	
1.5.6	Core Data Accounting	->	X	X	
2.0	Manage Customer/Operator Supplied Data	->			
2.1	Validate Payload Commands Data	->	X	X	
2.2	Check SSDS Service Requirements	->	X	X	X
2.3	Validate Core Commands/Data	->	X	X	X
2.3.1	Authorize Operator	->	X	X	X
2.3.2	Authorize Operation	->	X	X	X
2.4	Provide Ancillary Data	->	X	X	
2.5	Support Customer System Operation	->	X	X	
2.5.1	Customer Data Processing	->	X	X	
2.5.2	Customer Payload Operations	->	X	X	
2.5.3	Support OTV Operations	->	X		
2.5.3.1	OTV Servicing	->	X		
2.5.3.2	OTV Checkout & Diagnostics	->	X		
2.5.3.3	OTV Deployment/Retrieval	->	X		
2.5.3.4	OTV Operation	->	X		
2.5.3.5	OTV Status	->	X		
2.5.4	Support OMV Operations	->	X		
2.5.4.1	OMV Service	->	X		

FUNCTION LIST

VEHICLE/SYSTEM ASSIGNMENT				
	STATION	COP	POP	COMMON
2.5.4.2 OMV Checkout & Diagnostics	-> X			
2.5.4.3 OMV Deployment/Retrieval	-> X			
2.5.4.4 Remote Operations Control	-> X			
2.5.4.5 OMV Operation	-> X			
2.5.4.6 OMV Status	-> X			
2.5.5 Customer Payload Checkout/Service	-> X			
2.6 SSPE Checkout and Servicing	-> X			
3.0 Schedule and Execute Operations	->			
3.1 Develop Recurring Operations Masters	-> X	X	X	
3.1.1 Develop Normal Day Payload Operations	-> X	X	X	
3.1.2 Develop Normal Day Core System Operations	-> X	X	X	
3.1.3 Develop Mode Compatibility Matrix	-> X	X	X	
3.1.4 Develop Major Event Operations	-> X	X	X	X
3.2 Develop Short Term Schedules	-> X	X	X	
3.2.1 Confirm Payload and Core Schedules	-> X	X	X	X
3.2.2 Incorporate New/Revised Operations	-> X	X	X	
3.2.3 Check for Conflicts	-> X	X	X	
3.2.4 Check for Facilities Capabilities	-> X	X	X	
3.2.5 Resolve Conflicts	-> X	X	X	
3.2.6 Maintain Short Term Schedules	-> X	X	X	
3.3 Develop Operating Events Schedule	-> X	X	X	
3.3.1 Time Tag Operations	-> X	X	X	
3.3.2 Check Schedule Conflicts	-> X	X	X	X
3.3.3 Maintain Operating Events Schedule	-> X	X	X	
3.3.4 Adjust for Unscheduled Mode Changes	-> X	X	X	
3.4 Sequence Operations	-> X	X	X	
3.4.1 Sequence Payload Operations	-> X	X	X	
3.4.2 Sequence Core System Operations	-> X	X	X	
3.4.3 Command Schedules Mode Changes	-> X	X	X	
3.4.4 Check For Executability	-> X	X	X	
4.0 Operate Core Systems	->			
4.1 Operate GN&C System	-> X	X	X	
4.1.1 Navigation	-> X	X	X	
4.1.1.1 Spacecraft State/Orbit Determ.	-> X	X	X	
4.1.1.2 Constellation State/Orbit Determin.	-> X			
4.1.1.3 Determine Ephemerides (Sun, Moon, etc.)	-> X	X	X	
4.1.1.4 Attitude Determination	-> X	X	X	
4.1.1.5 Navigation State Propagation	-> X	X	X	
4.1.1.6 Device Management	-> X	X	X	
4.1.1.7 Command Interface Processing	-> X	X	X	
4.1.2 Guidance	-> X	X	X	
4.1.2.1 Reboost/Reentry Targetting	-> X	X	X	
4.1.2.2 Maneuver Coordination	-> X	X	X	
4.1.2.3 Collision Check	-> X	X	X	
4.1.2.4 Reboost/Maneuver	-> X	X	X	
4.1.2.5 Tether Control	-> X			
4.1.2.6 Determine Pointing Mount Control	-> X	X	X	
4.1.2.7 Device Management	-> X	X	X	
4.1.2.8 Command Interface Processing	-> X	X	X	
4.1.3 Attitude Control	-> X	X	X	
4.1.3.1 Attitude and Translation Control	-> X	X	X	

FUNCTION LIST

		VEHICLE/SYSTEM ASSIGNMENT			
		STATION	COP	POP	COMMON
4.1.3.2	Generate Attitude Commands	-> X	X	X	
4.1.3.3	Momentum Management	-> X	X	X	
4.1.3.4	Pointing Mount Control	-> X	X	X	
4.1.3.5	Device Mgmt	-> X	X	X	
4.1.3.6	Cmd I/F Processing	-> X	X	X	
4.1.4	Traffic Control	-> X			X
4.1.4.1	Compute/Propagate Constellation Rel. State	-> X			X
4.1.4.2	Manage Constellation Orbit Maneuvers	-> X			X
4.1.4.3	Schedule Deployment/Rendezvous	-> X			X
4.1.4.4	Manage Rendezvous	-> X			X
4.1.4.5	Target Collision Avoidance	-> X			X
4.1.4.6	Cmd I/F Processing	-> X			X
4.1.5	Tracking	-> X			X
4.1.5.1	Long Range Object Tracking	-> X			X
4.1.5.2	Proximity Tracking	-> X			X
4.1.5.3	Object Catalog Maintenance	-> X			X
4.1.5.4	Tracking Data Conditioning	-> X			X
4.1.5.5	Device Mgmt	-> X			X
4.1.5.6	Cmd I/F Processing	-> X			X
4.1.6	Time and Frequency Management	-> X	X	X	
4.1.6.1	Time Source Mgmt	-> X	X	X	
4.1.6.2	Time Update	-> X	X	X	
4.1.6.3	Frequency Source Management	-> X	X	X	
4.1.6.4	Device Mgmt	-> X	X	X	
4.1.6.5	Cmd I/F Processing	-> X	X	X	
4.2	Operate Non-GN&C Core Systems	->			
4.2.1	Operate Power System	-> X	X	X	
4.2.1.1	Evaluate Array Performance	-> X	X	X	
4.2.1.2	Configure Power Distribution	-> X	X	X	
4.2.1.3	Power Source Mgmt	-> X	X	X	
4.2.1.4	Array Deployment	-> X	X	X	
4.2.1.5	Project Energy Available	-> X	X	X	
4.2.1.6	Device Mgmt	-> X	X	X	
4.2.1.7	Cmd I/F Processing	-> X	X	X	
4.2.2	Operate Thermal Control System	-> X	X	X	
4.2.2.1	Manage Thermal Load	-> X	X	X	
4.2.2.2	Thermal Device Management	-> X	X	X	
4.2.2.3	Project Thermal Load Capacity	-> X	X	X	
4.2.2.4	Command I/F Processing	-> X	X	X	
4.2.3	Structures & Mechanism Support	-> X			
4.2.3.1	Mechanism Control/Safety	-> X			
4.2.3.2	MRMS Operation	-> X			
4.2.3.3	Manage Docking/Berthing	-> X			
4.2.3.4	Device Mgmt	-> X			
4.2.3.5	Cmd I/F Processing	-> X			
4.2.4	ECLSS Operation	-> X			
4.2.4.1	Control Atmospheric Pressure and Composition	-> X			
4.2.4.2	Control Temperature, Humidity	-> X			
4.2.4.3	Potable Water Mgmt	-> X			
4.2.4.4	Grey Water Mgmt	-> X			
4.2.4.5	Fire Detection and Control	-> X			

FUNCTION LIST

		VEHICLE/SYSTEM ASSIGNMENT			
		STATION	COP	POP	COMMON
4.2.4.6	Device Mgmt	-> X			
4.2.4.7	Cmd I/F Processing	-> X			
4.2.5	Communication	-> X	X	X	
4.2.5.1	Communication Network Control	-> X	X	X	
4.2.5.2	Communication Equipment Control	-> X	X	X	
4.2.5.3	Communication Equipment Status Monitoring	-> X	X	X	
4.2.5.4	Failure Detection/Recovery	-> X	X	X	
4.2.5.5	Command Processing	-> X	X	X	
4.2.5.6	Communication Interface Control	-> X	X	X	
4.2.5.7	Telemetry Control	-> X	X	X	
4.3	Support Flight Crew Activities	-> X			
4.3.1	Health Maintenance	-> X			
4.3.1.1	Crew Physiological Monitoring	-> X			
4.3.1.2	Medical Diagnostics Support	-> X			
4.3.1.3	Treatment Support	-> X			
4.3.1.4	Nutrition Analysis	-> X			
4.3.1.5	Exercise Planner	-> X			
4.3.1.6	Physiological Data Transformation and Analysis	-> X			
4.3.1.7	Cmd I/F Processing	-> X			
4.3.2	Space Station Safety	-> X	X	X	
4.3.2.1	Cautions & Warnings	-> X	X	X	
4.3.2.2	Abnormal and Emergency Procedures	-> X	X	X	
4.3.2.3	Automatic Control Processing	-> X	X	X	
4.3.2.4	Cmd I/F Processing	-> X	X	X	
4.3.3	Habitability	-> X			
4.3.3.1	Recreation Services	-> X			
4.3.3.2	Crew/Ground Communications	-> X			
4.3.3.3	Cmd I/F Processing	-> X			
4.3.4	EVA Support	-> X			
4.3.4.1	EMU Contamination Control	-> X			
4.3.4.2	EMU Monitor and Maintenance	-> X			
4.3.4.3	MMU Monitor and Maintenance	-> X			
4.3.4.4	Safety Interlock Monitor & Control	-> X			
4.3.4.5	EVA Real Time Monitor & Control	-> X			
4.3.4.6	EVA Visual Information	-> X			
4.3.4.7	Airlock Atmospheric Pressure and Composition Cntrl	-> X			
4.3.4.8	Airlock Temperature and Humidity Control	-> X			
4.3.4.9	Device Mgmt	-> X			
4.3.4.10	Cmd I/F Processing	-> X			
4.3.5	Operations & Procedure Support	-> X			
4.3.5.1	Maintenance & Repair Procedures	-> X			
4.3.5.2	Operations Procedures	-> X			
4.3.5.3	General Data Processing Support	-> X			
4.3.5.4	General Purpose Programming Language	-> X			
4.3.5.5	Update System Software	-> X			
4.4	Provide Customer Avionics Services	-> X			
4.4.1	GN&C Services	-> X	X	X	
4.4.1.1	Gnd Track Determination	-> X	X	X	
4.4.1.2	Magnetic Field Determination	-> X	X	X	
4.4.1.3	Pallet Coarse Pointing	-> X	X	X	
4.4.1.4	Relative Alignment Determination	-> X	X	X	

FUNCTION LIST

		VEHICLE/SYSTEM ASSIGNMENT			
		STATION	COP	POP	COMMON
4.4.2	Environment Monitor	-> X	X	X	
4.4.3	Tracking Services	-> X	X	X	
4.5	Monitor and Status System	-> X	X	X	
4.5.1	Monitor Core Systems Status	-> X	X	X	
4.5.2	Monitor Customer Systems Status	-> X	X	X	
4.5.3	Mass Properties Configuration Update	-> X	X	X	
4.5.4	Diagnostics Support	-> X	X	X	
4.5.4.1	Fault Analysis	-> X	X	X	
4.5.4.2	Fault Correction	-> X	X	X	
4.5.4.3	Trend Analysis	-> X	X	X	
4.5.5	System Test and Evaluation	-> X	X	X	
4.5.6	Command Interface Processing	-> X	X	X	
5.0	Manage Facilities and Resources	->			
5.1	Manage Flight System Facilities	-> X	X	X	
5.1.1	Flight Data Base Management	-> X	X	X	
5.1.1.1	Update/Access And Synchronization	-> X	X	X	
5.1.1.2	Data File Mgmt	-> X	X	X	
5.1.1.3	Mass Memory Resource Mgmt	-> X	X	X	
5.1.1.4	Archival Storage	-> X			
5.1.1.5	Device Mgmt	-> X	X	X	
5.1.1.6	Cmd I/F Processing	-> X	X	X	
5.1.2	Flight Resource Mgmt	-> X	X	X	
5.1.2.1	Load Scheduling	-> X	X	X	
5.1.2.2	System Executive	-> X	X	X	
5.1.2.3	Initialization & Configuration Control	-> X	X	X	
5.1.2.4	Configure Data Processing Equipment	-> X	X	X	
5.1.2.5	Facility Status	-> X	X	X	
5.1.2.6	Reconfigure/Disconnect Payloads and Core Systems	-> X	X	X	
5.1.2.7	Device Mgmt	-> X	X	X	
5.1.2.8	Cmd I/F Processing	-> X	X	X	
5.1.3	Displays & Controls	-> X			X
5.1.3.1	Display and Control Device Management	-> X			X
5.1.3.2	Display and Control Command Interface Management	-> X			X
5.2	Manage Ground System Facilities	->			X
5.2.1	Interface Management	->			X
5.2.2	Schedule/Status Compare	->			X
5.2.3	Transmit Reconfiguration Schedule	->			X
5.2.4	Ground Status Database Management	->			X
5.2.5	Adjust for Unscheduled Mode Change	->			X
6.0	Develop, Simulate, Integrate and Train	->			X
6.1	Interpret Model Requests	->			X
6.2	Develop Communications Model Configuration	->			X
6.3	Simulate Space Station Sys. Communication Elements	->			X
6.4	Develop Hardware Integration Configuration	->			X
6.5	Simulate Space Station Elements	->			X
6.6	Develop Software Integration Configuration	->			X
6.7	Simulate Space Station Processors	->			X
6.8	Conduct Training	-> X			X
6.8.1	Define Training Plan	-> X			X
6.8.2	Define Training Script	-> X			X
6.8.3	Define Model Requirements	-> X			X

FUNCTION LIST

		VEHICLE/SYSTEM ASSIGNMENT			
		STATION	COP	POP	COMMON
6.8.4	Configure Simulation	-> X			X
6.8.5	Conduct Training Exercise	-> X			X
6.8.6	Evaluate Operator Performance	-> X			X
6.8.7	Maintain Operator Training Status	-> X			X
6.9	Develop Software	->			X
6.9.1	Configuration Control and Management Support	->			X
6.9.2	Requirement Analysis and Generation Tools	->			X
6.9.3	Design and Code Generation	->			X
6.9.4	Build and Delivery	->			X
6.9.5	Testing and Analysis	->			X
6.9.6	Documentation	->			X
6.9.7	Communication	->			X
6.9.8	Reconfiguration Data Management	->			X
7.0	Support Space Station Program	->			X
7.1	Maintain Integrated Logistics Plan	->			X
7.1.1	Analyze System Performance	-> X			X
7.1.2	Determine Effects On Integrated Plan	->			X
7.1.3	Analyze Affected Plans	->			X
7.1.4	Analyze Impact of Program Changes	->			X
7.2	Log Customer Usage of System	->			X
7.3	Maintain Technical Documentation	->			X
7.3.1	Analyze System Operation	-> X			X
7.3.2	Update Technical Documents	->			X
7.3.3	Analyze Program Changes	->			X
7.3.4	Transmit Procedures	-> X			X
7.4	Control Inventories	->			X
7.4.1	Monitor Customer Inventories	->			X
7.4.2	Monitor Station Inventories	->			X
7.4.3	Monitor Ground Facility Inventories	->			X
7.5	Configuration Management	->			X

Appendix A-5

Top Down Traceability Report

The top-down traceability report maps each requirement to the function derived to meet the requirement. The requirement is identified by its unique requirement number, document abbreviation from where the requirement was extracted, and the paragraph number of the requirement. Each requirement is also given a brief descriptor to help further identify the requirement. Requirements extracted from Reference 3 are identified by the major mission number; then the count of other missions that need the function is given in parentheses. Next, the list of functions that map to the requirement is given. The functions are identified by their derived function number and abbreviated function title.

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<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1001	RFP	C-2-3.1.1

DESCRIPTOR

HABITABLE SS MODULE SHALL PROVIDE COM & CTRL & DATA HANDLING

DERIVED FUNCTION NUMBER

4.2
5.1

FUNCTION TITLE

OP NON-GN&C CORE SYSTEMS
MANAGE FLIGHT SYS FACILITIES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1002	RFP	C-2-3.1.1

DESCRIPTOR

RESOURCE DISTRIBUTION AND CTRL

DERIVED FUNCTION NUMBER

4.2

FUNCTION TITLE

OP NON-GN&C CORE SYSTEMS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1003	RFP	C-2-3.1.2

DESCRIPTOR

PROVIDE S.S. P/L COM & DATA HANDLING

DERIVED FUNCTION NUMBER

1.0
2.0
2.5

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA
MANAGE CUST/OP SUPL DATA
SUPPORT CUSTOMER SYS OPERATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1004	RFP	C-2-3.1.2

DESCRIPTOR

ARTICULATING MOUNTS FOR EXTERNAL PAYLOAD

DERIVED FUNCTION NUMBER

4.1.2.6
4.1.2.6P

FUNCTION TITLE

DEVELOP POINTING MOUNT CONTROL
DEVELOP POINTING MOUNT CONTROL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1005	RFP	C-2-3.1.3

DESCRIPTOR

INDEPENDENT CUST. OPERATION & MONITOR OF PAYLOAD

DERIVED FUNCTION NUMBER

2.5.2
2.5.2P

FUNCTION TITLE

CUSTOMER P/L OPS
CUSTOMER P/L OPS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1006	RFP	C-2-3.1.3

DESCRIPTOR

CUST. PLATFORM/FREE FLIER PAYLOAD OPERATION AND MONITOR

DERIVED FUNCTION NUMBER

1.0
2.0

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA
MANAGE CUST/OP SUPL DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1007	RFP	C-2-3.1.3

DESCRIPTOR

CUST. DATA MGMT. SERVICES

DERIVED FUNCTION NUMBER

1.0
2.5.1
2.5.1P

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA
CUST DATA PROC
CUST DATA PROC

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1008	RFP	C-2-3.1.5

DESCRIPTOR

SATELLITE & PAYLOAD SERVICING & C/O

DERIVED FUNCTION NUMBER

2.5.5

FUNCTION TITLE

CUST P/L C/O & SERVICE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1009	RFP	C-2-3.1.6

DESCRIPTOR

REMOTE SERVICING OF P/L'S, SAT'S, & PLATFORMS VIA OMV & OTV

DERIVED FUNCTION NUMBER

2.5.3.4
2.5.4.4
2.5.4.5

FUNCTION TITLE

OTV OPERATION
REMOTE OPERATION CTRL
OMV OPERATIONS CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1010	RFP	C-2-3.1.6

DESCRIPTOR

SERVICING IN GEOSYNC ORBIT

DERIVED FUNCTION NUMBER

2.5.4.4
2.5.4.5

FUNCTION TITLE

REMOTE OPERATION CTRL
OMV OPERATIONS CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1011	RFP	C-2-3.1.7

DESCRIPTOR
PAYLOAD INTEGRATION, C/O, AND DEPLOYMENT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.5	CUST P/L C/O & SERVICE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1012	RFP	C-2-3.1.7

DESCRIPTOR
OTV SERVICING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.1	OTV SERVICE
2.5.3.2	OTV CHECKOUT, DIAGNOSTICS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1013	RFP	C-3-2.1.C

DESCRIPTOR
OMV SERVICING & MAINTENANCE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.1	OMV SERVICE
2.5.4.2	OMV CHECKOUT/DIAGNOSTICS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1014	RFP	C-3-2.1.I

DESCRIPTOR
SSPE BERTHING & SERVICING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.6	SSPE C/O & SERVICING
4.2.3.2	RMS OPERATIONS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1015	RFP	C-3-2.2.A

DESCRIPTOR
INDEPENDENT EMERGENCY DETECTION & CTRL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.4.1	CONTROL ATM PRESS & COMP
4.2.4.3	POTABLE WATER MANAGEMENT
4.2.4.5	FIRE DETECTION & CTRL
4.3.2.2	ABNORMAL & EMERGENCY PROCED
4.3.2.2P	ABNORMAL & EMERGENCY PROCED

REQUIREMENT # : 1015 (Continued)

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1016	RFP	C-3-2.3.A

DESCRIPTOR
PAYLOAD PRELAUNCH VERIFICATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.5	SIMULATE SS ELEMENTS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1017	RFP	C-3-2.3.B

DESCRIPTOR
MINIMIZE GSE DURING GROUND TEST

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.3	SIMULATE SS COMMUNICATION
6.5	SIMULATE SS ELEMENTS
6.9	SOFTWARE DEVELOPMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1018	RFP	C-3-2.3.D

DESCRIPTOR
VERIFICATION OF MODS/UPGRADES PRIOR TO LAUNCH

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.0	DEVELOP, SIM, INTEGRATE & TRAIN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1019	RFP	C-3-2.4.C

DESCRIPTOR
NEAR TERM PLANNING ON BOARD

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
3.2	DEVELOP SHORT TERM SCHEDULE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1020	RFP	C-3-2.4.C

DESCRIPTOR
LONG TERM PLANNING ON GROUND

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1021	RFP	C-3-2.4.D

DESCRIPTOR

NEAR CONTINUOUS GND/SS VOICE, VIDEO, & COMM, COM

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1022	RFP	C-3-2.4.E

DESCRIPTOR

PROX OPS MGMT. CAPABILITY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.4.4	MANAGE RENDEZVOUS
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1023	RFP	C-3-2.4.F

DESCRIPTOR

COOP OPS WITH PLATFORM/PAYLOAD

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
2.5	SUPPORT CUSTOMER SYS OPERATION
4.2.5	COMMUNICATION
4.3.4.4	SAFETY INTERLOCK MON. & CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1024	RFP	C-3-2.4.G

DESCRIPTOR

GROUND CTRL CENTER PLAN OPERATIONS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
3.1	DEVELOP RECURRING OPS MASTERS
3.2	DEVELOP SHORT TERM SCHEDULE
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1025	RFP	C-3-2.4.H

DESCRIPTOR

COLLISION AVOIDANCE FROM ORBITAL DEBRIS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.2	GUIDANCE
4.1.4.5	TARGET COLLISION AVOIDANCE
4.1.5	TRACKING

REQUIREMENT # : 1025 (Continued)

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1026	RFP	C-3-2.4.J

DESCRIPTOR

GROUND CONTROL CAPABILITY OF CRITICAL SYSTEMS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
2.0	MANAGE CUST/OP SUPL DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1027	RFP	C-3-2.5.B

DESCRIPTOR

PROVIDE ON-BOARD TRAINING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.5	OPS & PROCEDURE SUPT
6.3	SIMULATE SS COMMUNICATION
6.5	SIMULATE SS ELEMENTS
6.8	CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1028	RFP	C-3-2.5.C

DESCRIPTOR

EXTENSIVE PREFLIGHT TRAINING LIMITED TO CRITICAL SYSTEMS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.8	CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1029	RFP	C-3-2.5.D

DESCRIPTOR

ON BOARD TRAINING VIA GROUND DATA BASE SUPPORT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.3	SIMULATE SS COMMUNICATION
6.8	CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1030	RFP	C-3-2.6.A

DESCRIPTOR

INTRA & EXTRA STATION PERSON TO PERSON COMMUNICATION

DERIVED FUNCTION NUMBER

4.2.5.1
4.2.5.2

FUNCTION TITLE

COMMUNICATION NETWORK CTRL
COMMUNICATION EQUIP CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1031	RFP	C-3-2.6.B

DESCRIPTOR

CREW HEALTH & MAINTENANCE & REC FACILITIES

DERIVED FUNCTION NUMBER

4.3

FUNCTION TITLE

FLIGHT CREW SUPPORT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1032	RFP	C-3-3.1.B

DESCRIPTOR

CUST. NEGOTIATE OF ADDITIONAL TRANSPORTATION

DERIVED FUNCTION NUMBER

TMIS

FUNCTION TITLE

TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1033	RFP	C-3-3.1.D

DESCRIPTOR

SECURE COMMUNICATION PROVIDED PY SSP

DERIVED FUNCTION NUMBER

1.0
2.0
2.3

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA
MANAGE CUST/OP SUPL DATA
VALIDATE CORE CMMDS/DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1034	RFP	C-3-3.1.G

DESCRIPTOR

INDEPENDENT CUST OPERATION AND MONITOR

DERIVED FUNCTION NUMBER

2.5.2
2.5.2P

FUNCTION TITLE

CUSTOMER P/L OPS
CUSTOMER P/L OPS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1035	RFP	C-3-3.1.I

DESCRIPTOR
BASIC ANCILLARY DATA PROVIDED

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.4	PROVIDE ANCILLARY DATA
2.4P	PROVIDE ANCILLARY DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1036	RFP	C-3-3.2.C

DESCRIPTOR
OMV/PLATFORM/OTV MAINTENANCE & SERVICING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.1	OTV SERVICE
2.5.3.2	OTV CHECKOUT, DIAGNOSTICS
2.5.4.1	OMV SERVICE
2.5.4.2	OMV CHECKOUT/DIAGNOSTICS
2.6	SSPE C/O & SERVICING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1037	RFP	C-3-3.2.D

DESCRIPTOR
IVA/EVA OPERATIONS DOCUMENTATION DATA SUPPORT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.5	OPS & PROCEDURE SUPT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1038	RFP	C-3-3.2.G

DESCRIPTOR
MAINTENANCE INFORMATION RECORD & RETRIEVE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.5.2	OPERATIONS PROCEDURES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1039	RFP	C-3-3.2.H

DESCRIPTOR
PROPRIETARY INFORMATION SECURITY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
2.0	MANAGE CUST/OP SUPL DATA
5.0	MANAGE SSDS FACILITIES

REQUIREMENT # : 1039 (Continued)

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1040	RFP	C-3-3.2.I

DESCRIPTOR
OPS & MAINTENANCE DOCUMENTATION SUPPORT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.5	OPS & PROCEDURE SUPT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1041	RFP	C-3-3.2.K

DESCRIPTOR
CREW/GROUND MODS TO S/W IN OP. SYSTEM

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.0	MANAGE CUST/OP SUPL DATA
4.3.5.4	GENERAL PROGRAMMING LANGUAGE
6.9	SOFTWARE DEVELOPMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1042	RFP	C-3-3.4.A

DESCRIPTOR
INTEGRATED LOGISTICS SYSTEM

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
7.1	DEVELOP LOGISTICS PLAN
7.3	MAINTAIN TECHNICAL DOCUMENTS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1043	RFP	C-4-2.1.2.4.A

DESCRIPTOR
SATELLITE & PAYLOAD SERVICING AT SPACE STATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.5	CUST P/L C/O & SERVICE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1044	RFP	C-4-2.1.2.4.B

DESCRIPTOR
REMOTE PAYLOAD/SAT. SERVICE VIA OMV

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.4	REMOTE OPERATION CTRL
2.6	SSPE C/O & SERVICING

REQUIREMENT # : 1044 (Continued)

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1045	RFP	C-4-2.1.2.1

DESCRIPTOR
ARTICULATING MOUNTS FOR EXTERNAL PAYLOADS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.2.6	DEVELOP POINTING MOUNT CONTROL
4.1.2.6P	DEVELOP POINTING MOUNT CONTROL
4.4.1.4	RELATIVE ALIGNMENT DET.
4.4.1.4P	RELATIVE ALIGNMENT DET.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1046	RFP	C-4-2.1.2.4.B

DESCRIPTOR
REMOTE PAYLOAD/SAT. SERVICING IN GEOSYNC ORBIT VIA OTV

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.4	OTV OPERATION
2.5.4.4	REMOTE OPERATION CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1047	RFP	C-4-2.1.3.3

DESCRIPTOR
INTERNAL/EXTERNAL CONTAMINATION MONITOR

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.4	PROVIDE ANCILLARY DATA
2.4P	PROVIDE ANCILLARY DATA
4.2.4.1	CTRL ATM PRESS & COMP
4.4.2	CONTAMINATION CONTROL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1048	RFP	C-4-2.1.4.2

DESCRIPTOR
DISPOSAL OF SSPE'S

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.2.1	REBOOST/REENTRY TARGETTING
4.1.2.1P	REBOOST/REENTRY TARGETTING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1049	RFP	C-4-2.1.9.C

DESCRIPTOR
MONITORING AND FAULT ISOLATION OF ORU'S

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2	OP NON-GN&C CORE SYSTEMS
4.2.2.2	THERMAL CTRL DEVICE MGMT
4.2.2.2P	THERMAL DEVICE MANAGEMENT
4.3.5.1	MAINTENANCE & REPAIR PROCEDUR
4.5.1	MONITOR CORE SYSTEM STATUS
4.5.1P	MONITOR CORE SYSTEM STATUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1050	RFP	C-4-2.1.10.2.B

DESCRIPTOR
REDUNDANCY MGMT. & STATUS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.0	OPERATE GN&C SYSTEM
4.3.2.1	CAUTION & WARNING
4.3.2.1P	CAUTION & WARNING
4.5	MONITOR & STATUS SYSTEM
5.0	MANAGE SSDS FACILITIES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1051	RFP	C-4-2.1.11.1

DESCRIPTOR
HAZARD CTRL BY WARNING DEV, SPECIAL PROC, EMERGENCY DEVICES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.2.1	CAUTION & WARNING
4.3.2.1P	CAUTION & WARNING
4.3.5	OPS & PROCEDURE SUPT
7.1	DEVELOP LOGISTICS PLAN
7.3	MAINTAIN TECHNICAL DOCUMENTS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1052	RFP	C-4-2.1.11.2.A1

DESCRIPTOR
INDEPENDENT EMERGENCY DETECT & CTRL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.4.1	CONTROL ATM PRESS & COMP
4.2.4.3	POTABLE WATER MANAGEMENT
4.2.4.5	FIRE DETECTION & CTRL
4.3.2.2	ABNORMAL & EMERGENCY PROCED
4.3.2.2P	ABNORMAL & EMERGENCY PROCED
4.5.1	MONITOR CORE SYSTEM STATUS

REQUIREMENT # : 1052 (Continued)

4.5.1P

MONITOR CORE SYSTEM STATUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1053	RFP	C-4-2.1.11.2.C

DESCRIPTOR
CRITICAL SYSTEM FAILURE NOTIFICATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.2.1	CAUTION & WARNING
4.3.2.1P	CAUTION & WARNING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1054	RFP	C-4-2.1.14

DESCRIPTOR
INTEGRATED LOGISTICS SYSTEM

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
7.1	DEVELOP LOGISTICS PLAN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1055	RFP	C-4-2.1.14.D

DESCRIPTOR
INVENTORY MGMT. SYSTEM

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
7.4	CONTROL INVENTORIES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1056	RFP	C-4-2.2.3.D

DESCRIPTOR
AUTO POWER SYSTEM LOAD CTRL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.1.1P	EVALUATE ARRAY PERFORMANCE
4.2.1.2	CONFIGURE PWR DIST.
4.2.1.2P	CONFIGURE PWR DIST.
4.2.1.3	POWER SOURCE MGMT.
4.2.1.3P	POWER SOURCE MGMT.
4.2.1.5P	PROJECT ENERGY AVAILABLE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1057	RFP	C-4-2.2.3.F

DESCRIPTOR

RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.1.2	CONFIGURE PWR DIST.
4.2.1.2P	CONFIGURE PWR DIST.
4.2.1.3	POWER SOURCE MGMT.
4.2.1.3P	POWER SOURCE MGMT.
5.1.2.6	RECONFIG/DISCONNECT P/L,CORE
5.1.2.6P	RECONFIG/DISCONNECT P/L,CORE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1058	RFP	C-4-2.2.4.1.B

DESCRIPTOR

MANAGE THERMAL LOAD

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.2.1	MANAGE THERMAL LOAD
4.2.2.1P	MANAGE THERMAL LOAD

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1059	RFP	C-4-2.2.5.2.A

DESCRIPTOR

STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.0	MANAGE CUST/OP SUPL DATA
4.3.1.1	CREW PHYSIOLOGICAL MONITOR
4.3.5.3	GENERAL DATA PROC. SUPPORT
4.3.5.4	GENERAL PROGRAMMING LANGUAGE
4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.5.2P	MONITOR CUSTOMER SYSTEM STATUS
4.5.4	DIAGNOSTIC SUPPORT
5.1	MANAGE FLIGHT SYST FACILITIES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1060	RFP	C-4-2.2.5.3.A

DESCRIPTOR

SUBSYSTEM STATUS ACCESS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
5.1.1	FLIGHT DATA BASE MGMT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1061	RFP	C-4-2.2.5.3.B

DESCRIPTOR
 PROVIDE HOUSEKEEPING DATA TO CUST.

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.4	PROVIDE ANCILLARY DATA
2.4P	PROVIDE ANCILLARY DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1062	RFP	C-4-2.2.5.3.E

DESCRIPTOR
 CORE FILE MGMT & DELIVERY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
5.1.1	FLIGHT DATA BASE MGMT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1063	RFP	C-4-2.2.5.3.E

DESCRIPTOR
 RATE BUFFERING FOR CUST. DELIVERED DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1064	RFP	C-4-2.2.5.3.F

DESCRIPTOR
 TIME/FREQUENCY MGMT, TIME FROM GPS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.6	TIME/FREQUENCY MANAGEMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1065	RFP	C-4-2.2.5.3.H

DESCRIPTOR
 SUPPORT SSPE C/O, ANALYSIS, OPS, & MAINTENANCE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.5	CUST P/L C/O & SERVICE
2.6	SSPE C/O & SERVICING
4.3.5.1	MAINTENANCE & REPAIR PROCEDUR
4.3.5.2	OPERATIONS PROCEDURES
4.5.4	DIAGNOSTIC SUPPORT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1066	RFP	C-4-2.2.5.3.I

DESCRIPTOR

INTERFACE WITH SERVICE VEHICLES IN SUPPORT OF C/O, & LAUNCH

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3	SUPPORT OTV OPERATIONS
2.5.4	SUPPORT OMV OPERATIONS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1067	RFP	C-4-2.2.5.3.J

DESCRIPTOR

INTERFACE WITH P/F,ETC TO SUPPORT REMOTE & PROX OPS DISPLAYS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1068	RFP	C-4-2.2.5.3.K

DESCRIPTOR

SUBSYSTEM MONITOR & CTRL BY CREW, GROUND

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.1	MANAGE REAL TIME DATA RETURN
2.3	VALIDATE CORE CMMDS/DATA
4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.5.2P	MONITOR CUSTOMER SYSTEM STATUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1069	RFP	C-4-2.2.5.3.L

DESCRIPTOR

SUPPORT P/L COMMAND & DATA OPS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
2.0	MANAGE CUST/OP SUPL DATA
3.4	SEQUENCE OPS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1070	RFP	C-4-2.2.5.3.M

DESCRIPTOR

DATA BASE MGMT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
5.1.1	FLIGHT DATA BASE MGMT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1071	RFP	C-4-2.2.5.3.0

DESCRIPTOR
 ENHANCEMENT OF DATA & MISSION RELIABILITY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1072	RFP	C-4-2.2.6.2.A

DESCRIPTOR
 MULTIPLE DUPLEX SS/GROUND VOICE CHANNELS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1073	RFP	C-4-2.2.6.2.A

DESCRIPTOR
 SS FACILITY WIRELESS VOICE COMMUNICATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1074	RFP	C-4-2.2.6.2.B

DESCRIPTOR
 VIDEO COMMUNICATION, STORAGE, RETRIEVAL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1075	RFP	C-4-2.2.6.2.B.1

DESCRIPTOR
 COMMERCIAL VIDEO FOR CREW REC. & TRAINING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.3.1	RECREATION SERVICES
6.8	CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1076	RFP	C-4-2.2.7.1.0

DESCRIPTOR
 PROVIDE FOR COOP OPS BETWEEN AC AND RMS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.3	ATTITUDE CONTROL
4.2.3.2	RMS OPERATIONS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1077	RFP	C-4-2.2.7.1.N

DESCRIPTOR
 PROVIDE FOR SIMULTANEOUS INDIVIDUAL OPS OF CTRL SYS EFFECTOR

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.2	GUIDANCE
4.1.3	ATTITUDE CONTROL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1079	RFP	C-4-2.2.6.2.C

DESCRIPTOR
 C & T BETWEEN SS AND INTEROPERATING ELEMENTS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.5	TRACKING
4.2.5	COMMUNICATION
4.3.4.5	EVA REAL TIME MON & CTRL
4.4.3	TRACKING SERVICES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1080	RFP	C-4-2.2.6.2.E

DESCRIPTOR
 PROVIDE ACQ & TRACKING FOR DETACHED VEHICLES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.5	TRACKING
4.4.3	TRACKING SERVICES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1081	RFP	C-4-2.2.6.2.F

DESCRIPTOR
 ALLOW INDEPENDENT CUSTOMER COMMUNICATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1082	RFP	C-4-2.2.6.2.G

DESCRIPTOR
CONTINGENCY COMMUNICATION LINK SSPE TO GROUND

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1083	RFP	C-4-2.2.6.2.H

DESCRIPTOR
CUSTOMER DATA COMMUNICATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1084	RFP	C-4-2.2.6.2.I

DESCRIPTOR
SECURE COMMUNICATION LINKS: COMMAND AUTHENTICATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.1	VALIDATE P/L CMMDS/DATA
2.1P	VALIDATE P/L CMMDS/DATA
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1085	RFP	C-4-2.2.6.2.J

DESCRIPTOR
PRIVATE SS/GROUND CRW COMMUNICATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1086	RFP	C-4-2.2.6.2.K

DESCRIPTOR
RECEPTION & PROCESSING GPS SIGNALS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1087	RFP	C-4-2.2.7.1.A

DESCRIPTOR
ESTABLISH AND MAINTAIN SSPE STATE VECTOR

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.1.1	SS STATE/ORBIT DET.
4.1.1.1P	SS STATE/ORBIT DET.
4.1.1.2	CONST STATE/ORBIT DET.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1088	RFP	C-4-2.2.7.1.A

DESCRIPTOR
ACCEPT SECOND SOURCE STATE VECTOR UPDATE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.1.1	SS STATE/ORBIT DET.
4.1.1.1P	SS STATE/ORBIT DET.
4.1.1.2	CONST STATE/ORBIT DET.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1089	RFP	C-4-2.2.7.1.B

DESCRIPTOR
PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.4	PROVIDE ANCILLARY DATA
2.4P	PROVIDE ANCILLARY DATA
4.1.1.5	NAVIGATION STATE PROP.
4.1.1.5P	NAVIGATION STATE PROP.
4.1.4.1	COMPUTE/PROP CONST. REL STATE
4.4.1	GN&C SERVICES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1090	RFP	C-4-2.2.7.1.C

DESCRIPTOR
PROVIDE STATE VECTOR AND TM TO SUPPORT CUSTOMER

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.4	PROVIDE ANCILLARY DATA
2.4P	PROVIDE ANCILLARY DATA
4.1.1.5	NAVIGATION STATE PROP.
4.1.1.5P	NAVIGATION STATE PROP.
4.1.4.1	COMPUTE/PROP CONST. REL STATE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1091	RFP	C-4-2.2.7.1.D

DESCRIPTOR

PROVIDE NAV & GUIDANCE FOR SSPE TRAFFIC CTRL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.1	NAVIGATION
4.1.2.2	MANEUVER COORDINATION
4.1.2.2P	MANEUVER COORDINATION
4.1.4.1	COMPUTE/PROP CONST. REL STATE
4.1.4.2	MANAGE CONST MANEUVERS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1092	RFP	C-4-2.2.7.1.E

DESCRIPTOR

APPR/DEP TRAJ FOR SSPE'S

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.4.4	MANAGE RENDEZVOUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1093	RFP	C-4-2.2.7.1.F

DESCRIPTOR

PROVIDE WARNING & COMMAND FOR UNSAFE SSPE TRAFFIC CONDITIONS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.4.1	COMPUTE/PROP CONST. REL STATE
4.1.4.5	TARGET COLLISION AVOIDANCE
4.3.2.1	CAUTION & WARNING
4.3.2.1P	CAUTION & WARNING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1094	RFP	C-4-2.2.7.1.G

DESCRIPTOR

PROVIDE GN&C FOR SSPE ORBIT ADJUSTMENT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.1	NAVIGATION
4.1.2	GUIDANCE
4.1.3	ATTITUDE CONTROL
4.1.4	TRAFFIC CONTROL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1095	RFP	C-4-2.2.7.1.H

DESCRIPTOR
ESTABLISH & MAINTAIN SSPE RELATIVE ATTITUDE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.3.1	CONTROL ATTITUDE
4.1.3.1P	CONTROL ATTITUDE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1096	RFP	C-4-2.2.7.1.I

DESCRIPTOR
PROVIDE PROPELLANT USAGE DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.5.1	MONITOR CORE SYSTEM STATUS
4.5.1P	MONITOR CORE SYSTEM STATUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1098	RFP	C-4-2.2.7.1.L

DESCRIPTOR
PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.2.6	DEVELOP POINTING MOUNT CONTROL
4.1.2.6P	DEVELOP POINTING MOUNT CONTROL
4.1.3.1	CONTROL ATTITUDE
4.1.3.1P	CONTROL ATTITUDE
4.4.1.4	RELATIVE ALIGNMENT DET.
4.4.1.4P	RELATIVE ALIGNMENT DET.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1099	RFP	C-4-2.2.7.1.M

DESCRIPTOR
SUPPORT BERTHING, DOCKING, & SEPERATION OPS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.3	OTV DEPLOYMENT/RETRIEVAL
2.5.4.3	OMV DEPLOYMENT/RETRIEVAL
4.1.4.4	MANAGE RENDEZVOUS
4.2.3.2	RMS OPERATIONS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1100	RFP	C-4-2.2.7.1.P

DESCRIPTOR
PRIVIDE ACTIVE MOMENTUM MGMT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.3.3	CMG MOMENTUM MGT.
4.1.3.3P	CMG MOMENTUM MGT.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1101	RFP	C-4-2.2.7.1.Q

DESCRIPTOR
PROVIDE RCS INHIBITS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.2.4	REBOOST/MANEUVER
4.1.2.4P	REBOOST/MANEUVER
4.3.4.4	SAFETY INTERLOCK MON. & CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1102	RFP	C-4-2.2.7.1.R

DESCRIPTOR
PERFORM COLLISION AVOIDANCE MANUVERS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.4.2	MANAGE CONST MANEUVERS
4.1.4.5	TARGET COLLISION AVOIDANCE
4.3.2.2	ABNORMAL & EMERGENCY PROCED
4.3.2.2P	ABNORMAL & EMERGENCY PROCED

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1103	RFP	C-4-2.2.7.1.S

DESCRIPTOR
PROVIDE CTRL DURING TETHERED OPS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.2.5	TETHER CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1104	RFP	C-4-2.2.7.1.T

DESCRIPTOR
PROVIDE NAV DATA TO PAYLOAD

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.4	PROVIDE ANCILLARY DATA
2.4P	PROVIDE ANCILLARY DATA
4.4.1.4	RELATIVE ALIGNMENT DET.

REQUIREMENT # : 1104 (Continued)

4.4.1.4P

RELATIVE ALIGNMENT DET.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1105	RFP	C-4-2.2.8

DESCRIPTOR
ATTITUDE CTRL & VELOCITY ADJUSTMENT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.2.4	REBOOST/MANEUVER
4.1.2.4P	REBOOST/MANEUVER
4.1.3.3	CMG MOMENTUM MGT.
4.1.3.3P	CMG MOMENTUM MGT.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1106	RFP	C-4-2.2.9.1.A

DESCRIPTOR
MONITOR AND REGULATE MODULE ATMOS. GASES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.4.1	CONTROL ATM PRESS & COMP
4.2.4.5	FIRE DETECTION & CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1107	RFP	C-4-2.2.9.1.A

DESCRIPTOR
PROVIDE FIRE DETECTION & SUPPRESSION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.4.5	FIRE DETECTION & CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1108	RFP	C-4-2.2.9.1.B

DESCRIPTOR
MODULE TEMP & HUMIDITY CTRL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.4.2	CONTROL TEMP, HUMIDITY

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1109	RFP	C-4-2.2.9.1.D

DESCRIPTOR
WATER QUALITY MGMT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.4.3	POTABLE WATER MANAGEMENT
4.2.4.4	GREY WATER MANAGMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1110	RFP	C-4-2.2.9.1.F

DESCRIPTOR
SERVICE & C/O OF MMU'S & EMU'S

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.4.2	EMU MONITOR & MAINTENANCE
4.3.4.3	MMU MONITOR & MAINTENANCE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1111	RFP	C422.10.1J.1.A

DESCRIPTOR
DETECT & CTRL OF INTERNAL ATMOS. CONTAM

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.4.1	CONTROL ATM PRESS & COMP

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1112	RFP	C422.10.1J.1.C

DESCRIPTOR
DETECTION, CORRECTION, & WARNING FOR SS ATMOS CONTAMINATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.4.1	CONTROL ATM PRESS & COMP
4.3.2.1	CAUTION & WARNING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1113	RFP	C4.2.2.10.2.D.2

DESCRIPTOR
A/V ENTERTAINMENT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.3.1	RECREATION SERVICES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1114	RFP	C4-2.2.10.2.G

DESCRIPTOR
MEDICAL DATA BASE SYSTEM

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.1	HEALTH MAINTENANCE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1115	RFP	C4-2.2.10.2.G.2

DESCRIPTOR
DOWNLINK OF DIAGNOSTIC IMAGES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.1.3	TREATMENT SUPPORT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1116	RFP	C4-2.2.11.2.B.2

DESCRIPTOR
AUTOMATIC SERVICING OF MMU & EMU EQUIP

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.6	SSPE C/O & SERVICING
4.3.4.2	EMU MONITOR & MAINTENANCE
4.3.4.3	MMU MONITOR & MAINTENANCE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1117	RFP	C4-2.2.11.2.B.2

DESCRIPTOR
MMU, & EMU SERVICE/PERFORMANCE TREND DATA ANALYSIS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.5.1	MONITOR CORE SYSTEM STATUS
4.5.1P	MONITOR CORE SYSTEM STATUS
4.5.4.3	TREND ANALYSIS
4.5.4.3P	TREND ANALYSIS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1118	RFP	C-4-2.2.12.2.H

DESCRIPTOR
FLUID MONITOR & CTRL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.5.1	MONITOR CORE SYSTEM STATUS
4.5.1P	MONITOR CORE SYSTEM STATUS
4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.5.2P	MONITOR CUSTOMER SYSTEM STATUS

REQUIREMENT # : 1118 (Continued)

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1119	RFP	C-4-3.2.1.A

DESCRIPTOR
OMV SERVICING AT SS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.1	OMV SERVICE
2.5.4.2	OMV CHECKOUT/DIAGNOSTICS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1120	RFP	C-4-3.2.3

DESCRIPTOR
OMV OPS CTRL & SAFETY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.4	REMOTE OPERATION CTRL
4.1.4	TRAFFIC CONTROL
4.2.3	STRUCT & MECH SUPT
4.2.5	COMMUNICATION
4.3.2.2	ABNORMAL & EMERGENCY PROCED

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1121	RFP	C-4-3.2.4

DESCRIPTOR
OMV DEPLOYMENT/RETRIEVAL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.3	OMV DEPLOYMENT/RETRIEVAL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1122	RFP	C-4-3.3.3

DESCRIPTOR
OTV OPERATIONS CONTROL & SAFETY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.5	OTV STATUS (TO CUST)
4.1.4.4	MANAGE RENDEZVOUS
4.2.5	COMMUNICATION
4.3.2.2	ABNORMAL & EMERGENCY PROCED

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1123	RFP	C-4-3.3.4

DESCRIPTOR
OTV DEPLOYMENT & RETRIEVAL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.3	OTV DEPLOYMENT/RETRIEVAL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1124	RFP	C-4-3.5.4

DESCRIPTOR
SS CTRL & SAFETY OF FF, SATELLITES DURING PROX OPS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.4.4	MANAGE RENDEZVOUS
4.2.3	STRUCT & MECH SUPT
4.2.5	COMMUNICATION
4.3.2.2	ABNORMAL & EMERGENCY PROCED
4.3.2.2P	ABNORMAL & EMERGENCY PROCED

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1125	RFP	C-4-3.6.B

DESCRIPTOR
PAYLOAD FACILITIES MGMT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1.2P	CONFIGURE POWER DISTRIBUTION
4.2.2.1	MANAGE THERMAL LOAD
4.2.2.1P	MANAGE THERMAL LOAD
4.2.2.3	PROJECT THERMAL CAPACITY AVAIA
4.2.2.3P	PROJECT THERMAL LOAD CAPACITY
4.5	MONITOR & STATUS SYSTEM
5.1.2.6	RECONFIG/DISCONNECT P/L,CORE
5.1.2.6P	RECONFIG/DISCONNECT P/L,CORE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1126	RFP	C-4-3.10

DESCRIPTOR
EMU, MMU AUTOMATIC SERVICING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.6	SSPE C/O & SERVICING
4.3.4.2	EMU MONITOR & MAINTENANCE
4.3.4.3	MMU MONITOR & MAINTENANCE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1127	RFP	C-2-3.1.3

DESCRIPTOR

PAYLOAD OPERATION CONSTRAINTS LIMITED TO SAFETY AND COMPATIB

DERIVED FUNCTION NUMBER

2.2

2.2P

FUNCTION TITLE

CHECK P/L CMMDS/DATA

CHECK P/L CMMDS/DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1128	RFP	C-4-2.1.11.2.E

DESCRIPTOR

DETECT, MONITOR, CONTROL HAZARDOUS FLUIDS

DERIVED FUNCTION NUMBER

4.2.4.1

4.3.2.1

4.3.2.1P

FUNCTION TITLE

CONTROL ATM PRESS & COMP

CAUTION & WARNING

CAUTION & WARNING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1129	RFP	C-4-2.2.2.5.e

DESCRIPTOR

PROVIDE RMS CTL, MODES, DATA, COMM, & CREW IF

DERIVED FUNCTION NUMBER

4.2.3.2

FUNCTION TITLE

RMS OPERATIONS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1130	RFP	C-4-2.1.11.2.L

DESCRIPTOR

DETECT AND EXTINGUISH FIRES

DERIVED FUNCTION NUMBER

4.2.4.5

FUNCTION TITLE

FIRE DETECTION & CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1131	RFP	C-4-1.2

DESCRIPTOR

ACCOM ORDERLY CAPABILITY GROWTH TO 2000

DERIVED FUNCTION NUMBER

GDESIGN

FUNCTION TITLE

GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1132	RFP	C-4-1.2

DESCRIPTOR
 PROVIDE CAPABILITY TO SERVICE OTV-GROWTH

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.1	OTV SERVICE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1133	RFP	C-4-1.2.F

DESCRIPTOR
 PROVIDE CAPABILITY TO SERVICE OMV

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.1	OMV SERVICE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1134	RFP	C-4-1.2.G

DESCRIPTOR
 PROVIDE CAPABILITY TO SERVICE UNMANNED SPACECRAFT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.6	SSPE C/O & SERVICING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1135	RFP	C-4-2.1.2.4

DESCRIPTOR
 FACILITATE SCHED/UNSCHED SERVICING OF SSPE'S

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.1	OTV SERVICE
2.5.4.1	OMV SERVICE
2.5.5	CUST P/L C/O & SERVICE
4.3.5.1	MAINTENANCE & REPAIR PROCEDUR

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1136	RFP	C-4-2.1.2.4.A

DESCRIPTOR
 SERVICE AND DEPLOY OTV

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.1	OTV SERVICE
2.5.3.3	OTV DEPLOYMENT/RETRIEVAL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1137	RFP	C-4-2.1.4.1

DESCRIPTOR
DESIGN FOR INDEF. OPERATIONAL LIFETIME

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1138	RFP	C-4-2.1.5

DESCRIPTOR
MODULAR DESIGN TO FACILITATE GROWTH

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1139	RFP	C-4-2.1.6

DESCRIPTOR
ACCOM. INCORPORATION OF NEW TECHNOLOGY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1140	RFP	C-4-2.1.7

DESCRIPTOR
ACCOM. PHASED DEGREE OF AUTONOMY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1141	RFP	C-4-2.1.8

DESCRIPTOR
ACCOM. PHASED DEGREE OF AUTOMATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1142	RFP	C-4-2.1.9a

DESCRIPTOR
FACILITATE ON-ORBIT & GROUND MAINTENANCE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1143	RFP	C-4-2.1.9b

DESCRIPTOR
ALL REASONABLE FAILURES REPAIRABLE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1144	RFP	C-4-2.1.9d

DESCRIPTOR
MAINTAIN CRITICAL SERVICES DURING MAINTENANCE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1145	RFP	C-4-2.1.9h

DESCRIPTOR
MINIMIZE CREW TIME FOR MAINTENANCE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1146	RFP	C-4-2.1.10

DESCRIPTOR
RELIABILITY PER SSP J8400001

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1147	RFP	C-4-2.1.10.1

DESCRIPTOR
SAFETY CRITICAL SYSTEMS FO/FS/RESTORABLE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.2.3	AUTOMATIC CTRL PROCESSING
4.3.2.3P	AUTOMATIC CTRL PROCESSING
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1148	RFP	C-4-2.1.10.1

DESCRIPTOR
NON-CRITICAL SYSTEMS FS/RESTORABLE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1149	RFP	C-4-2.1.10.2a

DESCRIPTOR
REDUNDANT SYSTEMS VERIFIABLE IN SITU

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1150	RFP	C-4-2.1.10.3

DESCRIPTOR
DESIGN TO PREVENT FAILURE PROPAGATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1151	RFP	C-4-2.1.10.4

DESCRIPTOR
SEPARATE ALTERNATIVE/REDUNDANT PATHS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1152	RFP	C-4-2.1.11

DESCRIPTOR
SAFETY PER SSP J8400001

DERIVED FUNCTION NUMBER
GDESIGN

FUNCTION TITLE
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1153	RFP	C-4-2.1.11.4.a

DESCRIPTOR
CREW ABLE TO OVERRIDE AUTOMATIC SAFING

DERIVED FUNCTION NUMBER
4.3.2.2
4.3.2.2P
GDESIGN

FUNCTION TITLE
ABNORMAL & EMERGENCY PROCED
ABNORMAL & EMERGENCY PROCED
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1154	RFP	C-4-2.1.11.4.b

DESCRIPTOR
REDUNDANT CMMD/CTL IN SEPARATE PRES. VOLUMES

DERIVED FUNCTION NUMBER
GDESIGN

FUNCTION TITLE
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1155	RFP	C-4-2.2.3.e

DESCRIPTOR
PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS

DERIVED FUNCTION NUMBER
4.5.1
4.5.1P
4.5.2
4.5.2P
5.1.2.6
5.1.2.6P

FUNCTION TITLE
MONITOR CORE SYSTEM STATUS
MONITOR CORE SYSTEM STATUS
MONITOR CUSTOMER SYSTEM STATUS
MONITOR CUSTOMER SYSTEM STATUS
RECONFIG/DISCONNECT P/L,CORE
RECONFIG/DISCONNECT P/L,CORE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1156	RFP	C-4-2.2.5.1a

DESCRIPTOR
OPERATOR IF THRU MPAC

DERIVED FUNCTION NUMBER
GDESIGN

FUNCTION TITLE
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1157	RFP	C-4-2.2.5.1b

DESCRIPTOR
 PROVIDE DATA PARTITIONING & PROTECTION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1158	RFP	C-4-2.2.5.1c

DESCRIPTOR
 ACCOMMODATE NEW TECHNOLOGY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1159	RFP	C-4-2.2.5.2b

DESCRIPTOR
 SUPPORT GEN PURPOSE PROGRAMMING LANGUAGE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.5.4 6.9	GENERAL PROGRAMMING LANGUAGE SOFTWARE DEVELOPMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1160	RFP	C-4-2.2.5.2c

DESCRIPTOR
 USER FRIENDLY MAN-MACHINE IF LANGUAGE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1161	RFP	C-4-2.2.5.3C1

DESCRIPTOR
 SUBSYS VISIBILITY VIA MPAC WITH MULTIPLE DISPLAYS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.5	MONITOR & STATUS SYSTEM

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1162	RFP	C-4-2.2.5.3C4

DESCRIPTOR
ANNUN. OF CATASTROPHIC FAILURES VIA MPAC

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.2.1	CAUTION & WARNING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1163	RFP	C-4-2.2.5.3d

DESCRIPTOR
SUPPORT CREW TRAINING VIA MPAC

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.8	CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1164	RFP	C-4-2.2.5.3g

DESCRIPTOR
STD FOR LANGUAGE, PROTOCOL, FORMAT TRANS RATES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1165	RFP	C-4-2.2.5.3m

DESCRIPTOR
DBMS SFWE INTERFACES W/ PROGRAMS & OP SYST

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
5.1.1	FLIGHT DATA BASE MGMT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1166	RFP	C-4-2.2.5.3n

DESCRIPTOR
ACCEPT MERGE, STORE 225MBPS FROM PLATFORM W/ GWTH MARGIN

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION
5.1.1	FLIGHT DATA BASE MGMT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1167	RFP	C-4-2.2.6.2g

DESCRIPTOR
GND-SS, GND-COP COMM. THROUGH TDRSS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1168	RFP	C-4-2.2.6.2g

DESCRIPTOR
PROVIDE FOR TRANSMISSION AT MAX TDRS KSA, SSA RATES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1169	RFP	C-4-2.2.6.2g

DESCRIPTOR
CUST RESPONSIBLE FOR DATA RATES OVER TDRS CAPACITY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1170	RFP	C-4-2.2.6.2j

DESCRIPTOR
SUBSYS RESPONSIBLE FOR COMMAND AUTHENTICATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1171	RFP	C-4-2.2.7.2b

DESCRIPTOR
CONTROL STATION ATTITUDE TO +/- DEG

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.3.1	CONTROL ATTITUDE
4.1.3.1P	CONTROL ATTITUDE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1172	RFP	C-4-2.2.7.2b

DESCRIPTOR
CONTROL POINTING MOUNTS TO 0.1 DEG

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.2.6	DEVELOP POINTING MOUNT CONTROL
4.1.2.6P	DEVELOP POINTING MOUNT CONTROL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1173	RFP	C-4-2.2.7.2b

DESCRIPTOR
DETERMINE POINTING MOUNT ATTITUDE TO 0.01 DEG

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.4.1.4	RELATIVE ALIGNMENT DET.
4.4.1.4P	RELATIVE ALIGNMENT DET.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1174	RFP	C-4-2.2.7.2b

DESCRIPTOR
LIMIT ANGULAR RATE TO 0.02 DEG/SEC

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.3.1	CONTROL ATTITUDE
4.1.3.1P	CONTROL ATTITUDE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1175	RFP	C-4-2.2.7.2d

DESCRIPTOR
POSITION COP TO +/- 100M ALT & PLANE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.4.2	MANAGE CONST MANEUVERS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1176	RFP	C-4-2.2.7.2e

DESCRIPTOR
POSITION ALL TRAFFIC WITHIN 1M DURING PROX OPS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.4.4	MANAGE RENDEZVOUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1177	RFP	C-4-2.2.10.2.G5

DESCRIPTOR
MONITOR CARDIAVASCULAR FUNCTIONS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.1.1	CREW PHYSIOLOGICAL MONITOR

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1178	RFP	C-4-2.2.11.1e

DESCRIPTOR
SUPPORT EMU DECONTAMINATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.2.1	CAUTION & WARNING
4.3.2.1P	CAUTION & WARNING
4.3.4.1	EMU CONTAM. CONTROL
4.3.4.7	AIRLOCK ATM. CONTROL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1179	RFP	C-4-2.2.11.2A6

DESCRIPTOR
CONTROL AIRLOCK PRESS FROM SS, AIRLOCK & OUTSIDE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.1.4	NUTRITION ANALYSIS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1180	RFP	C-4-3.3.1a

DESCRIPTOR
SERVICE OTV

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.1	OTV SERVICE
2.5.3.2	OTV CHECKOUT, DIAGNOSTICS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1181	RFP	C-4-3.4.1

DESCRIPTOR
OMV REMOTE SERVICING AT PLATFORM

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.4	REMOTE OPERATION CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1182	RFP	C-4-3.5.1b

DESCRIPTOR
 BERTH, HOLD, POSITION FREE FLIERS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.3.2	RMS OPERATIONS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1183	RFP	C-4-3.8.1.b

DESCRIPTOR
 DETECT HAZARDOUS FLUIDS IN ALL GND SYSTEMS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1184	RFP	C-4-3.10.1.b

DESCRIPTOR
 IMAGE DISPLAYS CONTROLLED BY EVA CREWMEN

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.4.6	EVA VISUAL INFORMATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1185	RFP	C-4-3.10.1a

DESCRIPTOR
 EMU SUIT CHECKOUT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.4.2	EMU MONITOR & MAINTENANCE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1186	RFP	C-4-3.10.1c

DESCRIPTOR
 MONITOR CREW EVA PHYSIOLOGICAL DATA ONCE PER MIN

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.1.1	CREW PHYSIOLOGICAL MONITOR

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1187	RFP	C-3-2.2c

DESCRIPTOR

FAIL OP/FAIL SAFE/RESTORE-SAFETY, MISSION CRITICAL SYSTEMS

DERIVED FUNCTION NUMBER

4.3.2.4
4.3.2.4P
GDESIGN

FUNCTION TITLE

SAFETY DEVICE MGMT
SAFETY DEVICE MGMT
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1188	RFP	C-3-3.3b

DESCRIPTOR

MANUAL OVERRIDES, INHIBITS OF AUTOMATIC FUNCTIONS

DERIVED FUNCTION NUMBER

4.3.2.2
4.3.2.2P
GDESIGN

FUNCTION TITLE

ABNORMAL & EMERGENCY PROCED
ABNORMAL & EMERGENCY PROCED
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1189	RFP	C-4-3.10.1c

DESCRIPTOR

NOTIFY CREW OF EMU WARNINGS

DERIVED FUNCTION NUMBER

4.3.2.1

FUNCTION TITLE

CAUTION & WARNING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1190	RFP	C-4-2.2.10.2g5

DESCRIPTOR

MEASURE CARDIAC OUTPUT

DERIVED FUNCTION NUMBER

4.3.1.6

FUNCTION TITLE

HEALTH DATA PROCESSING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1191	RFP	C-4-2.2.10g9

DESCRIPTOR

INCLUDE MEDICAL CHECKLIST IN MEDICAL DATA BASE

DERIVED FUNCTION NUMBER

4.3.1.2

FUNCTION TITLE

MEDICAL DIAG. SUPPORT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1192	RFP	C-4-2.2.10.2g7

DESCRIPTOR
PERFORM METABOLIC ANALYSIS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.1.4	NUTRITION ANALYSIS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1193	RFP	C-4-2.2.10.2g13

DESCRIPTOR
USE EXERCISE AS A PHYSIOLOGICAL COUNTERMEASURE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.1.5	EXERCISE PLANNER

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1194	RFP	C-4-2.2.6.2b2

DESCRIPTOR
ONE-WAY TV MONITORING OF EVA ACTIVITIES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.4.5	EVA REAL TIME MON & CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1195	RFP	C-4-2.2.11.2a6

DESCRIPTOR
CTRL AIRLOCK PRES/DEPRES RATE TO 0.1 PSI/SEC NORM, 1 PSI/SEC

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.4.7	AIRLOCK ATM. CONTROL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1196	RFP	C-4-2.2.11.2a7

DESCRIPTOR
HYPERTARIC AIRLOCK CTL, PRES UP TO 5 ATM, 0.2 FROM 3 PSI MIN

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.4.7	AIRLOCK ATM. CONTROL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1197	RFP	C-4-2.2.9.2.B.1

DESCRIPTOR

MIN & MAX LEVELS OF TEMP & HUMIDITY PER TABLE 6-4-IX

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.4.1	CONTROL ATM PRESS & COMP
4.2.4.2	CONTROL TEMP, HUMIDITY
4.3.4.8	AIRLOCK TEMP & HUMIDITY CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1198	RFP	C-4-3.10.16

DESCRIPTOR

6-IMAGE/MIN DISPLAY W/AUDIO EXPLANATION FOR EVA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.4.6	EVA VISUAL INFORMATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1199	RFP	C-4-3.10.1C

DESCRIPTOR

ONCE PER MIN DATA TRANSMISSION FROM EMU

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.4.5	EVA REAL TIME MON & CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1200	RFP	C-4-2.2.9.2b2

DESCRIPTOR

CREW MAY SET MODULE TEMP & HUMIDITY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.4.2	CONTROL TEMP, HUMIDITY
4.3.4.8	AIRLOCK TEMP & HUMIDITY CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1201	RFP	C-3-3.2g

DESCRIPTOR

FUNCTIONALLY INDEPEND. SUBSYS TO FACITATE MAINTENANCE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1202	RFP	C-3-2.1f

DESCRIPTOR
COORD PLAT., SS, & ORBITER FUNCTIONS DURING NSTS SERVICE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5 GDESIGN	COMMUNICATION GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1203	RFP	C-4-2.2.10.2f

DESCRIPTOR
AUDIO/VIDEO ENTERTAINMENT REQ'D IN WARDROOM

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.3.1	RECREATION SERVICES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1204	RFP	C-4-2.2.10.2h

DESCRIPTOR
AUDIO/VIDEO ENTERTAINMENT REQ'D IN EXERCISE AREA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.3.1	RECREATION SERVICES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1205	RFP	C-3-2.5.A

DESCRIPTOR
MINIMIZE EXTENSIVE CREW TRAINING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.8	CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1206	RFP	C-3-2.5.D

DESCRIPTOR
ON-BOARD & GROUND TRAINING COMMONALITY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.8	CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1207	RFP	C-3-3.1.E

DESCRIPTOR

MINIMUM STATION SPECIALIZED TRAINING FOR CUSTOMERS

<u>DERIVED FUNCTION NUMBER</u>
6.8

<u>FUNCTION TITLE</u>
CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1208	RFP	C-3-2.3.C

DESCRIPTOR

VERIFY FUNCTIONAL INTERFACES BEFORE LAUNCH

<u>DERIVED FUNCTION NUMBER</u>

6.3

6.4

6.5

6.6

6.7

<u>FUNCTION TITLE</u>

SIMULATE SS COMMUNICATION

DEVELOP H/W INTEG CONFIG

SIMULATE SS ELEMENTS

DEVELOP S/W INTEG CONFIG

SIMULATE SS PROCESSORS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
1209	RFP	C-2-3.1.3

DESCRIPTOR

P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST

<u>DERIVED FUNCTION NUMBER</u>

2.2

2.2P

2.5

2.5.2

2.5.2P

6.5

6.8

<u>FUNCTION TITLE</u>

CHECK P/L CMMDS/DATA

CHECK P/L CMMDS/DATA

SUPPORT CUSTOMER SYS OPERATION

CUSTOMER P/L OPS

CUSTOMER P/L OPS

SIMULATE SS ELEMENTS

CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2001	CRSS	0.3

DESCRIPTOR

COMMUNICATE PRIMARILY THROUGH TDRSS

<u>DERIVED FUNCTION NUMBER</u>

4.2.5.1

4.2.5.1P

<u>FUNCTION TITLE</u>

COMMUNICATION NETWORK CTRL

COMMUNICATION NETWORK CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2002	CRSS	0.3

DESCRIPTOR
COP TRANSMIT/RECEIVE THROUGH TDRSS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5.1	COMMUNICATION NETWORK CTRL
4.2.5.1P	COMMUNICATION NETWORK CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2003	CRSS	0.3

DESCRIPTOR
COORDINATE UPLINK/DOWNLINK WITH NCC VIA SSCC

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
3.2.1	CONFIRM P/L & CORE SCHEDULES
3.2.1P	CONFIRM P/L & CORE SCHEDULES
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2004	CRSS	1.1.4

DESCRIPTOR
PROVIDE USER FRIENDLY ENVIRONMENT THRU P/L LIFE CYCLE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2005	CRSS	1.1.9

DESCRIPTOR
CUSTOMER OPTION FOR REAL TIME P/L INTERACTION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
2.0	MANAGE CUST/OP SUPL DATA
4.2.5	COMMUNICATION
4.2.5.2	COMMUNICATION EQUIP CTRL
4.2.5.2P	COMMUNICATION EQUIP CTRL
4.2.5.5	COMM COMMAND PROCESSING
4.2.5.5P	COMM COMMAND PROCESSING
4.2.5.6	COMM INTERFACE CONTROL
4.2.5.6P	COMM INTERFACE CONTROL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2006	CRSS	3.1.1

DESCRIPTOR
HANDLE RAW CUST DATA, ROUTINELY PROCESS TO LEVEL 0

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4.5	LEVEL 0 CUSTOMER DATA PROC.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2007	CRSS	3.1.1

DESCRIPTOR
CATALOG, ARCHIVE, MANAGE, DISSEMINATE CUSTOMER DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4	MANAGE DELIVERABLE CUST DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2008	CRSS	3.1.2

DESCRIPTOR
PROVIDE REAL TIME, RAW P/L DATA TO CUSTOMER

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.1	MANAGE REAL TIME DATA RETURN
1.4	MANAGE DELIVERABLE CUST DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2010	CRSS	3.1.6

DESCRIPTOR
CUSTOMER DATA ARCHIVE SEARCH AND RETRIEVAL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2011	CRSS	3.1.7

DESCRIPTOR
SUPPORT DATA EXCHANGE AMONG CUSTOMERS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2012	CRSS	3.2.2

DESCRIPTOR

PROVIDE CUSTOMER DATA ACCOUNTABILITY

DERIVED FUNCTION NUMBER

1.4.6
2.1
2.1P
2.2
2.2P

FUNCTION TITLE

CUSTOMER DATA ACCOUNTING
VALIDATE P/L CMMDS/DATA
VALIDATE P/L CMMDS/DATA
CHECK P/L CMMDS/DATA
CHECK P/L CMMDS/DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2013	CRSS	3.2.3

DESCRIPTOR

PROVIDE LEVEL 0 DATA QUICK LOOK CAPABILITY AS STD. SERVICE

DERIVED FUNCTION NUMBER

1.1
1.3
1.4.5

FUNCTION TITLE

MANAGE REAL TIME DATA RETURN
DATA DISTRIBUTION
LEVEL 0 CUSTOMER DATA PROC.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2014	CRSS	3.3.1

DESCRIPTOR

OPTIONAL CUSTOMER DATA PROCESSING TO LEVEL 1A

DERIVED FUNCTION NUMBER

SSIS

FUNCTION TITLE

SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2015	CRSS	3.3.3

DESCRIPTOR

SUPPORT ROUTINE CUSTOMER ANALYSES

DERIVED FUNCTION NUMBER

1.4.5
SSIS

FUNCTION TITLE

LEVEL 0 CUSTOMER DATA PROC.
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2016	CRSS	3.4.1

DESCRIPTOR

MAINTAIN ARCHIVES OF CUSTOMER AND ENGINEERING DATA

DERIVED FUNCTION NUMBER

SSIS

FUNCTION TITLE

SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2017	CRSS	3.4.1.5

DESCRIPTOR
SHORT TERM CUSTOMER DATA ARCHIVE CATALOG

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4.6	CUSTOMER DATA ACCOUNTING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2018	CRSS	3.4.1.6

DESCRIPTOR
PROVIDE INVENTORIES OF LEVEL 0 AND 1A DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4.6	CUSTOMER DATA ACCOUNTING
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2019	CRSS	3.4.1.7

DESCRIPTOR
LOG DATA TRANSFERS AND ACCESS INFORMATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4.6	CUSTOMER DATA ACCOUNTING
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2020	CRSS	5.2.10

DESCRIPTOR
SUPPORT TELECONFERENCING WITH SPACE NODE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
4.2.5.1	COMMUNICATION NETWORK CTRL
4.2.5.2	COMMUNICATION EQUIP CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2021	CRSS	4.1.1

DESCRIPTOR
PROVIDE ENGINEERING AND OPERATIONS DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4.4	ANCILLARY DATA ACQUISITION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2022	CRSS	4.1.1.1

DESCRIPTOR

PROVIDE ANCILLARY DATA TO CUSTOMER EQUIPMENT

DERIVED FUNCTION NUMBER

1.4.4
2.4
2.4P

FUNCTION TITLE

ANCILLARY DATA ACQUISITION
PROVIDE ANCILLARY DATA
PROVIDE ANCILLARY DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2023	CRSS	4.1.2

DESCRIPTOR

PROVIDE TIME REFERENCE, 1 mSEC ACCURACY

DERIVED FUNCTION NUMBER

2.4
2.4P
4.1.6

FUNCTION TITLE

PROVIDE ANCILLARY DATA
PROVIDE ANCILLARY DATA
TIME/FREQUENCY MANAGEMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2024	CRSS	4.1.3

DESCRIPTOR

PROVIDE ORBIT POSITION, TBD M ACCURACY

DERIVED FUNCTION NUMBER

2.4
2.4P
4.1.1.1
4.1.1.1P
4.4.1.1
4.4.1.1P

FUNCTION TITLE

PROVIDE ANCILLARY DATA
PROVIDE ANCILLARY DATA
SS STATE/ORBIT DET.
SS STATE/ORBIT DET.
GND TRACK DETERMINATION
GND TRACK DETERMINATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2025	CRSS	4.1.4

DESCRIPTOR

PROVIDE ATTITUDE, TBD DEG. ACCURACY

DERIVED FUNCTION NUMBER

2.4
2.4P
4.1.1.4
4.1.1.4P
4.4.1.4
4.4.1.4P

FUNCTION TITLE

PROVIDE ANCILLARY DATA
PROVIDE ANCILLARY DATA
ATTITUDE DET.
ATTITUDE DET.
RELATIVE ALIGNMENT DET.
RELATIVE ALIGNMENT DET.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2026	CRSS	4.2.1

DESCRIPTOR

ACCESS TO SS PROG ENG OPER'S, ADMIN AND DESCRIPTIVE INFORM

DERIVED FUNCTION NUMBER

1.4.4
4.3.5.2

FUNCTION TITLE

ANCILLARY DATA ACQUISITION
OPERATIONS PROCEDURES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2027	CRSS	5.1.1

DESCRIPTOR

HANDLE CUST AUDIO, VIDEO AND DIGITAL DATA/COMMANDS

DERIVED FUNCTION NUMBER

1.0
2.0

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA
MANAGE CUST/OP SUPL DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2028	CRSS	5.1.2

DESCRIPTOR

MANAGE TRANSFER OF CUSTOMER DATA

DERIVED FUNCTION NUMBER

1.4

FUNCTION TITLE

MANAGE DELIVERABLE CUST DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2029	CRSS	5.1.4

DESCRIPTOR

PROVIDE FOR REALTIME REALLOC OF DATA DIST RESOURCES

DERIVED FUNCTION NUMBER

1.3
3.3
5.2.3

FUNCTION TITLE

DATA DISTRIBUTION
DEVELOP OP EVENT SCHEDULE
TRANSMIT RECONFIGURATION SCHED

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2030	CRSS	5.1.9

DESCRIPTOR

STATUS COMMUNICATION LINKS

DERIVED FUNCTION NUMBER

5.2.3

FUNCTION TITLE

TRANSMIT RECONFIGURATION SCHED

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2031	CRSS	5.2.3

DESCRIPTOR

SUPPORT VIDEO RECORD/PLAYBACK BETWEEN SSP ELEMENTS

DERIVED FUNCTION NUMBER

1.0
4.2.5.1
SSIS

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA
COMMUNICATION NETWORK CTRL
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2032	CRSS	5.3.3

DESCRIPTOR

SUPP AUDIO RECORD/PLAYBACK BETWEEN SSP ELEMENTS

DERIVED FUNCTION NUMBER

1.0
4.2.5.2
SSIS

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA
COMMUNICATION EQUIP CTRL
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2033	CRSS	6.1.1

DESCRIPTOR

SUPPORT CUSTOMER PAYLOAD COMMAND

DERIVED FUNCTION NUMBER

2.0
3.0
4.2.5.1
4.2.5.1P
4.2.5.2
4.2.5.2P

FUNCTION TITLE

MANAGE CUST/OP SUPL DATA
SCHEDULE & EXECUTE OPERATIONS
COMMUNICATION NETWORK CTRL
COMMUNICATION NETWORK CTRL
COMMUNICATION EQUIP CTRL
COMMUNICATION EQUIP CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2034	CRSS	6.1.3.1

DESCRIPTOR

RESTRICTED/CONSTRAINED COMMAND INHIBITION, TRANSMISSION

DERIVED FUNCTION NUMBER

2.2
2.2P
3.2.6
3.3.2
3.3.2P

FUNCTION TITLE

CHECK P/L CMMDS/DATA
CHECK P/L CMMDS/DATA
CHECK UNRES. R/C CMMDS
CHECK R/C REAL TIME CMMDS
CHECK R/C REAL TIME CMMDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2035	CRSS	6.1.4

DESCRIPTOR

CHECK CUSTOMER ID TO INSURE AUTHORIZATION

DERIVED FUNCTION NUMBER

2.1
2.1P

FUNCTION TITLE

VALIDATE P/L CMMDS/DATA
VALIDATE P/L CMMDS/DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2036	CRSS	6.1.6

DESCRIPTOR

CHECK FOR COMMAND RESTRICTION

DERIVED FUNCTION NUMBER

2.2
2.2P

FUNCTION TITLE

CHECK P/L CMMDS/DATA
CHECK P/L CMMDS/DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2037	CRSS	6.1.6.2

DESCRIPTOR

CHECK RESTRICTED/CONSTRAINED COMMANDS FOR EXECUTION

DERIVED FUNCTION NUMBER

3.2
3.2.6
3.2.6P
3.2.7
3.3.2
3.3.2P

FUNCTION TITLE

DEVELOP SHORT TERM SCHEDULE
CHECK UNRES. R/C CMMDS
MAINTAIN SHORT TERM SCHEDULES
MAINTAIN SHORT TERM SCHEDULES
CHECK R/C REAL TIME CMMDS
CHECK R/C REAL TIME CMMDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2038	CRSS	6.1.6.3

DESCRIPTOR

PASS THROUGH NON-RESTRICTED COMMANDS

DERIVED FUNCTION NUMBER

2.2
2.2P

FUNCTION TITLE

CHECK P/L CMMDS/DATA
CHECK P/L CMMDS/DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2039	CRSS	6.1.7

DESCRIPTOR

PERMIT INDEPENDENT NON-RESTR CUST OPS, MAINT. CTL, SAFETY

DERIVED FUNCTION NUMBER

2.2

FUNCTION TITLE

CHECK P/L CMMDS/DATA

REQUIREMENT # : 2039 (Continued)

2.2P

CHECK P/L CMMDS/DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2040	CRSS	6.2.1

DESCRIPTOR

ALLOW CUSTOMER TO OPERATE P/L REAL TIME

DERIVED FUNCTION NUMBER

<u>FUNCTION TITLE</u>
1.0
2.0
3.2.6
3.2.6P
3.2.7
3.3.2
3.3.2P
4.2.5

MANAGE CUST/OP DEL. DATA
MANAGE CUST/OP SUPL DATA
CHECK UNRES. R/C CMMDS
MAINTAIN SHORT TERM SCHEDULES
MAINTAIN SHORT TERM SCHEDULES
CHECK R/C REAL TIME CMMDS
CHECK R/C REAL TIME CMMDS
COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2041	CRSS	6.2.1.2

DESCRIPTOR

INCLUDE RESTRICTED/CONSTRAINED COMMANDS IN REAL TIME OPS

DERIVED FUNCTION NUMBER

<u>FUNCTION TITLE</u>
2.0
3.2.6
3.2.6P
3.2.7
3.3.2
3.3.2P

MANAGE CUST/OP SUPL DATA
CHECK UNRES. R/C CMMDS
MAINTAIN SHORT TERM SCHEDULES
MAINTAIN SHORT TERM SCHEDULES
CHECK R/C REAL TIME CMMDS
CHECK R/C REAL TIME CMMDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2042	CRSS	6.2.1.4

DESCRIPTOR

ALLOW REALTIME AUTOMATED COMMAND SEQ CHANGES

DERIVED FUNCTION NUMBER

<u>FUNCTION TITLE</u>
2.0

MANAGE CUST/OP SUPL DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2043	CRSS	6.2.1.4.1

DESCRIPTOR

VERIFY COMMAND SEQUENCE CHANGES

DERIVED FUNCTION NUMBER

<u>FUNCTION TITLE</u>
3.0

SCHEDULE & EXECUTE OPERATIONS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2044	CRSS	6.2.1.5

DESCRIPTOR
SUPPORT CUSTOMER PROCESSOR LOADING/DUMPS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
2.0	MANAGE CUST/OP SUPL DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2045	CRSS	6.3.1

DESCRIPTOR
ONBOARD GENERATION OF CUST STORED COMMAND SEQUENCES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.0	MANAGE CUST/OP SUPL DATA
5.1.1	FLIGHT DATA BASE MANAGEMENT
6.7	SIMULATE SS PROCESSORS
6.9	SOFTWARE DEVELOPMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2046	CRSS	6.3.1.1

DESCRIPTOR
ACTIVATE STORED COMMAND SEQUENCES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.2	CUSTOMER P/L OPS
2.5.2P	CUSTOMER P/L OPS
3.4.1	SEQUENCE P/L OPS
3.4.1P	SEQUENCE P/L OPS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2047	CRSS	6.3.2

DESCRIPTOR
STORED PAYLOAD COMMAND ACTIVATED BY ANOTHER STORED COMMAND

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.2	CUSTOMER P/L OPS
2.5.2P	CUSTOMER P/L OPS
3.3	DEVELOP OP EVENT SCHEDULE
3.4.1	SEQUENCE P/L OPS
3.4.1P	SEQUENCE P/L OPS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2048	CRSS	7.1.1

DESCRIPTOR
MAINTENANCE AND TROUBLESHOOTING PROCEDURE SUPPORT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.5	OPS & PROCEDURE SUPT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2049	CRSS	7.1.1

DESCRIPTOR
CRITICAL/CONTINGENCY PROCEDURE SUPPORT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.2.2	ABNORMAL & EMERGENCY PROCED
4.3.2.2P	ABNORMAL & EMERGENCY PROCED

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2050	CRSS	7.1.1

DESCRIPTOR
CONFIGURATION MANAGEMENT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
7.5	CONFIG. MGMT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2051	CRSS	7.1.1

DESCRIPTOR
CUSTOMER DATA TRACKING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.1.3	MONITOR REAL TIME DATA
1.1.3P	MONITOR REAL TIME DATA
1.2.3	MONITOR DELAY DATA
1.2.3P	MONITOR DELAY DATA
1.3.2	DATA CAPTURE
1.4.2	CUSTOMER DATA CAPTURE
1.4.6	CUSTOMER DATA ACCOUNTING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2052	CRSS	7.1.2

DESCRIPTOR
LONG TERM MISSION PLANNING AND SUPPORT DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
3.2	DEVELOP SHORT TERM SCHEDULE
TMIS	TECHNICAL MGMT INFORMATION SYS

REQUIREMENT # : 2052 (Continued)

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2053	CRSS	7.1.3

DESCRIPTOR
PAYLOAD HOUSEKEEPING DATA MONITOR

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.1	CUST DATA PROC
2.5.1P	CUST DATA PROC
2.5.2	CUSTOMER P/L OPS
2.5.2P	CUSTOMER P/L OPS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2054	CRSS	7.1.4

DESCRIPTOR
SUPPORT CUSTOMER LOGISTICS CONTROL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
7.4.1	MONITOR CUSTOMER INVENTORIES
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2055	CRSS	7.2.1

DESCRIPTOR
SUPPORT INTERACTIVE P/L PLANNING/SCHEDULING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
3.1	DEVELOP RECURRING OPS MASTERS
3.2	DEVELOP SHORT TERM SCHEDULE
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2056	CRSS	7.2.2

DESCRIPTOR
SUPPORT REQUESTS FOR SSP RESOURCES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
3.2.1	CONFIRM P/L & CORE SCHEDULES
3.2.1P	CONFIRM P/L & CORE SCHEDULES
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2057	CRSS	7.2.2.1

DESCRIPTOR
INTEGRATE CUST REQUESTS, SCHEDULE RESOURCES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
3.1	DEVELOP RECURRING OPS MASTERS
3.2	DEVELOP SHORT TERM SCHEDULE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2059	CRSS	7.2.4

DESCRIPTOR
PROVIDE SS RESOURCES AND AVAILABILITY INFO.

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
3.1	DEVELOP RECURRING OPS MASTERS
3.2	DEVELOP SHORT TERM SCHEDULE
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2060	CRSS	7.2.5

DESCRIPTOR
PROVIDE RESTRICTED COMMANDS LIST

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.2	CHECK P/L CMMDS/DATA
2.2P	CHECK P/L CMMDS/DATA
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2061	CRSS	7.2.6

DESCRIPTOR
SUPPORT RAPID REPLANNING FOR OPPORTUNITIES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.2	CHECK P/L CMMDS/DATA
2.2P	CHECK P/L CMMDS/DATA
2.5.2	CUSTOMER P/L OPS
2.5.2P	CUSTOMER P/L OPS
3.2	DEVELOP SHORT TERM SCHEDULE
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2062	CRSS	7.3.1

DESCRIPTOR
SUPPORT FAULT DETECTION/ISOLATION/RECOVERY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.5	CUST P/L C/O & SERVICE
5.1.2	FLIGHT DATA RESOURCE MGMT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2063	CRSS	7.3.2

DESCRIPTOR
DIFFERENTIATE P/L, SSIS FAULTS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.5	CUST P/L C/O & SERVICE
4.2.5.4	COMM FAILURE DETECTION/RECOV
4.2.5.4P	COMM FAILURE DETECTION/RECOV
4.5.1	MONITOR CORE SYSTEM STATUS
4.5.1P	MONITOR CORE SYSTEM STATUS
4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.5.2P	MONITOR CUSTOMER SYSTEM STATUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2064	CRSS	7.3.3

DESCRIPTOR
MONITOR, PROTECT DATA SYSTEM INTERFACES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.5.3	COMM STATUS MONITORING
4.2.5.3P	COMM STATUS MONITORING
4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.5.2P	MONITOR CUSTOMER SYSTEM STATUS
5.1.2.6	RECONFIG/DISCONNECT P/L,CORE
5.1.2.6P	RECONFIG/DISCONNECT P/L,CORE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2065	CRSS	7.3.4

DESCRIPTOR
MEASURE, CONTROL RESOURCES AVAILABLE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.5.2P	MONITOR CUSTOMER SYSTEM STATUS
5.1.2	FLIGHT DATA RESOURCE MGMT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2066	CRSS	7.3.4.1

DESCRIPTOR
RETURN DISPOSITION/REASON ON COMMANDS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.2	CHECK P/L CMMDS/DATA
2.2P	CHECK P/L CMMDS/DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2067	CRSS	7.4.1

DESCRIPTOR
PROVIDE P/L EVENT HISTORY OPERATIONS REPORT TO CUST

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.2	CHECK P/L CMMDS/DATA
2.2P	CHECK P/L CMMDS/DATA
3.0	SCHEDULE & EXECUTE OPERATIONS
7.2	LOG CUSTOMER USEAGE OF SYSTEM

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2068	CRSS	7.4.2

DESCRIPTOR
PROVIDE SS OPERATIONS REPORT ACCESS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4.4	ANCILLARY DATA ACQUISITION
4.4	SPECIAL CUST AVIONICS SERVICES
4.5	MONITOR & STATUS SYSTEM

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2069	CRSS	7.4.3

DESCRIPTOR
REPORT SSIS RESOURCE DEMANDS TO CUSTOMER

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
7.2	LOG CUSTOMER USEAGE OF SYSTEM
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2070	CRSS	7.4.3.1

DESCRIPTOR
REPORT SSIS RESOURCE DEMAND TO CUSTOMER

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
7.2	LOG CUSTOMER USEAGE OF SYSTEM
SSIS	SSIS/SCS, NOT SSDS

REQUIREMENT # : 2070 (Continued)

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2071	CRSS	7.4.4

DESCRIPTOR
REPORT SSIS RESOURCE USAGE TO CUSTOMER

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
7.2	LOG CUSTOMER USAGE OF SYSTEM
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2072	CRSS	8.0

DESCRIPTOR
PROVIDE TOOLS TO VERIFY INTERFACES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.0	DEVELOP, SIM, INTEGRATE & TRAIN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2073	CRSS	8.2.1

DESCRIPTOR
VERIFY CUSTOMER/SSIS INTERFACES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.0	DEVELOP, SIM, INTEGRATE & TRAIN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2074	CRSS	8.1.2

DESCRIPTOR
ACCEPT/RETURN CUSTOMER PAYLOAD TEST DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.3	SIMULATE SS COMMUNICATION
6.5	SIMULATE SS ELEMENTS
6.7	SIMULATE SS PROCESSORS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2075	CRSS	8.2.1

DESCRIPTOR
PROVIDE REMOTELY ACCESSIBLE SSIS SOFTWARE SIMULATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.6	DEVELOP S/W INTEG CONFIG

REQUIREMENT # : 2075 (Continued)

6.7

SIMULATE SS PROCESSORS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2076	CRSS	8.2.1.1

DESCRIPTOR
VERIFY PROTOCOLS ABOVE PHYSICAL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.5	SIMULATE SS ELEMENTS
6.7	SIMULATE SS PROCESSORS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2077	CRSS	8.2.1.2

DESCRIPTOR
VERIFY FULL BREADTH OF COMMAND FROM FLT OR GND WORKSTATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.5	SIMULATE SS ELEMENTS
6.7	SIMULATE SS PROCESSORS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2078	CRSS	8.2.1.3

DESCRIPTOR
VERIFY ANCILLARY DATA FORMATS/CONTENT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.5	SIMULATE SS ELEMENTS
6.7	SIMULATE SS PROCESSORS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2079	CRSS	8.2.1.4

DESCRIPTOR
VERIFY SSIS/DBMS/CUSTOMER INTERACTION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.7	SIMULATE SS PROCESSORS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2080	CRSS	8.2.2

DESCRIPTOR

PROVIDE REMOTE, MENU-DRIVEN ACCESS TO SIMULATIONS

DERIVED FUNCTION NUMBER

6.1

6.6

FUNCTION TITLE

INTERPRET MODEL REQUESTS

DEVELOP S/W INTEG CONFIG

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2081	CRSS	8.3.1

DESCRIPTOR

PROVIDE CUSTOMER TRAINING FOR SSIS USE

DERIVED FUNCTION NUMBER

6.8

FUNCTION TITLE

CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2082	CRSS	8.3.2

DESCRIPTOR

PROVIDE INTEGRATED, MULTI P/L OPS TRAINING

DERIVED FUNCTION NUMBER

6.8

FUNCTION TITLE

CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2083	CRSS	8.4.1

DESCRIPTOR

PROVIDE SIM FUNCTIONS TO VALIDATE PROCEDURES, SOFTWARE

DERIVED FUNCTION NUMBER

6.5

6.6

6.9

FUNCTION TITLE

SIMULATE SS ELEMENTS

DEVELOP S/W INTEG CONFIG

SOFTWARE DEVELOPMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2084	CRSS	8.4.2

DESCRIPTOR

PROVIDE INTERACTIVE REMOTE PLANNED OPER SUBMISSION

DERIVED FUNCTION NUMBER

3.1

TMIS

FUNCTION TITLE

DEVELOP RECURRING OPS MASTERS

TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2085	CRSS	8.5.1

DESCRIPTOR

VERIFY END-TO-END CUST DATA THROUGHPUT

DERIVED FUNCTION NUMBER

1.0

2.0

4.2.5

6.2

6.3

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA

MANAGE CUST/OP SUPL DATA

COMMUNICATION

DEV COMM MODEL CONFIG

SIMULATE SS COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2086	CRSS	8.6.1

DESCRIPTOR

PROVIDE SELECTION OF SIM. MODELS, STATIC TO VERY DYNAMIC

DERIVED FUNCTION NUMBER

6.1

FUNCTION TITLE

INTERPRET MODEL REQUESTS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2087	CRSS	3.4.1.2

DESCRIPTOR

MAINT SHORT TERM (1 WEEK) CUST DATA ARCH TO ENSURE DATA DEL.

DERIVED FUNCTION NUMBER

1.4.3

FUNCTION TITLE

CUSTOMER DATA HANDLING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2088	CRSS	3.4.1.4

DESCRIPTOR

ARCHIVE ENGR./ANC DATA FOR AT LEAST TWO YEARS

DERIVED FUNCTION NUMBER

1.5.3

1.5.3P

1.5.5

1.5.5P

FUNCTION TITLE

DATA EXTRACTION

DATA EXTRACTION

ENGINEERING DATA ANALYSIS

ENGINEERING DATA ANALYSIS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2089	CRSS	3.1.1

DESCRIPTOR

OPTIONALLY PROCESS P.L DATA TO LEVEL 1A

DERIVED FUNCTION NUMBER

SSIS

FUNCTION TITLE

SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2090	CRSS	3.4.1.1

DESCRIPTOR

P/L DATA STORAGE WILL CONTAIN LEVEL 1A DATA IF REQUIRED

<u>DERIVED FUNCTION NUMBER</u>
SSIS

<u>FUNCTION TITLE</u>
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2091	CRSS	3.4.1.3

DESCRIPTOR

LONG TERM ARCHIVING OF O/1A DATA SHALL BE A NEGOTIATED COST

<u>DERIVED FUNCTION NUMBER</u>
SSIS

<u>FUNCTION TITLE</u>
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2092	CRSS	3.3.3

DESCRIPTOR

SSIS WILL PROVIDE S/W FOR ROUTINE DATA ANALYSIS

<u>DERIVED FUNCTION NUMBER</u>
SSIS

<u>FUNCTION TITLE</u>
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2093	CRSS	4.2.1

DESCRIPTOR

SSIS SHALL PROVIDE A CATALOG OF CUSTOMER DATA PRODUCTS

<u>DERIVED FUNCTION NUMBER</u>
TMIS

<u>FUNCTION TITLE</u>
TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2094	CRSS	5.2.6

DESCRIPTOR

SSIS SHALL PROVIDE AN ONLINE VIDEO CATALOG OF SERVICE OPTION

<u>DERIVED FUNCTION NUMBER</u>
SSIS

<u>FUNCTION TITLE</u>
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2095	CRSS	7.1.2

DESCRIPTOR

SSIS SHALL PROVIDE LONG TERM PLANNING OF MISSIONS, RENDEZVOU

DERIVED FUNCTION NUMBER
TMIS

FUNCTION TITLE
TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2096	CRSS	6.1.5.2.3

DESCRIPTOR

SSIS SHALL PROVIDE REMOTE WORK STATION FOR CUST. HOME INSTIT

DERIVED FUNCTION NUMBER
SSIS

FUNCTION TITLE
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2097	CRSS	3.4.2

DESCRIPTOR

PROVIDE ONLINE CUSTOMER DATA STORAGE FOR 12 HOURS

DERIVED FUNCTION NUMBER
1.4.3

FUNCTION TITLE
CUSTOMER DATA HANDLING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2099	CRSS	7.1.1

DESCRIPTOR

CONSUMABLES MANAGEMENT

DERIVED FUNCTION NUMBER

4.5.1
4.5.1P
4.5.2
4.5.2P

FUNCTION TITLE

MONITOR CORE SYSTEM STATUS
MONITOR CORE SYSTEM STATUS
MONITOR CUSTOMER SYSTEM STATUS
MONITOR CUSTOMER SYSTEM STATUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2100	CRSS	1.1.1

DESCRIPTOR

SSIS/SCS AVAILABLE 24 HRS/DAY, 7 DAYS/WEEK

DERIVED FUNCTION NUMBER
GPERF

FUNCTION TITLE
GENERAL PERFORMANCE REQUIRMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2101	CRSS	1.1.2

DESCRIPTOR

SIMULTANEOUSLY SUPPORT PRE, DURING AND POST MISSION

<u>DERIVED FUNCTION NUMBER</u>
6.0

<u>FUNCTION TITLE</u>
DEVELOP, SIM, INTEGRATE & TRAIN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2103	CRSS	1.1.4

DESCRIPTOR

MINIMIZE COMPLEXITY OF CUSTOMER INTERFACES

<u>DERIVED FUNCTION NUMBER</u>
GDESIGN

<u>FUNCTION TITLE</u>
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2104	CRSS	1.1.5

DESCRIPTOR

MAXIMIZE USE OF STANDARD INTERFACES

<u>DERIVED FUNCTION NUMBER</u>
6.4
6.6
GDESIGN

<u>FUNCTION TITLE</u>
DEVELOP H/W INTEG CONFIG
DEVELOP S/W INTEG CONFIG
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2105	CRSS	1.1.6

DESCRIPTOR

USE REPLACEABLE/EXPANDABLE MODULAR SYST DESIGN THROUGHOUT

<u>DERIVED FUNCTION NUMBER</u>
GDESIGN

<u>FUNCTION TITLE</u>
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2106	CRSS	1.1.7

DESCRIPTOR

PERMIT PRIVATE COMMANDING, DATA TRANSMISSION, AND INSITU OPS

<u>DERIVED FUNCTION NUMBER</u>
GDESIGN

<u>FUNCTION TITLE</u>
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2107	CRSS	1.1.8

DESCRIPTOR
SSIS/SCS SYSTEM SHALL BE USER FRIENDLY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2108	CRSS	1.1.10

DESCRIPTOR
PERMIT CUST COMMUNICATION LINK INDEPENDENT OF TDRS/TDAS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2109	CRSS	1.2.1

DESCRIPTOR
SUPPORT PEAK AND AVER. DATA RATES FROM PHASE B RFP

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
4.2.5.1	COMMUNICATION NETWORK CTRL
4.2.5.1P	COMMUNICATION NETWORK CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2110	CRSS	1.2.2

DESCRIPTOR
PROVIDE END-TO-END BIT-ERROR RATES PER PHASE B RFP

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
4.2.5	COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2111	CRSS	1.2.3

DESCRIPTOR
SUPP. AGGREGATE END-TO-END RATES THROUGHPUT PER PHASE B RFP

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
4.2.5.1	COMMUNICATION NETWORK CTRL
4.2.5.1P	COMMUNICATION NETWORK CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2112	CRSS	1.2.4

DESCRIPTOR

PROVIDE CUST. DATA STORAGE PER PHASE B RFP

DERIVED FUNCTION NUMBER

1.0
4.2.5

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA
COMMUNICATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2113	CRSS	2.1.1

DESCRIPTOR

DEFINE CUST INTERFACE STANDARDS PER ISO/OSI

DERIVED FUNCTION NUMBER

1.4
2.1
2.1P
6.4
6.6
SSIS
TMIS

FUNCTION TITLE

MANAGE DELIVERABLE CUST DATA
VALIDATE P/L CMMDS/DATA
VALIDATE P/L CMMDS/DATA
DEVELOP H/W INTEG CONFIG
DEVELOP S/W INTEG CONFIG
SSIS/SCS, NOT SSDS
TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2114	CRSS	2.1.1.1

DESCRIPTOR

USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY

DERIVED FUNCTION NUMBER

1.4
2.1
2.1P
6.4
6.6
SSIS
TMIS

FUNCTION TITLE

MANAGE DELIVERABLE CUST DATA
VALIDATE P/L CMMDS/DATA
VALIDATE P/L CMMDS/DATA
DEVELOP H/W INTEG CONFIG
DEVELOP S/W INTEG CONFIG
SSIS/SCS, NOT SSDS
TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2115	CRSS	2.1.2

DESCRIPTOR

USE EXISTING STDS FOR FIRST 3 OSI LAYERS

DERIVED FUNCTION NUMBER

1.4
2.1
2.1P
6.4
6.6
SSIS

FUNCTION TITLE

MANAGE DELIVERABLE CUST DATA
VALIDATE P/L CMMDS/DATA
VALIDATE P/L CMMDS/DATA
DEVELOP H/W INTEG CONFIG
DEVELOP S/W INTEG CONFIG
SSIS/SCS, NOT SSDS

REQUIREMENT # : 2115 (Continued)

TMIS

TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2116	CRSS	2.1.2.1

DESCRIPTOR

USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4	MANAGE DELIVERABLE CUST DATA
2.1	VALIDATE P/L CMMDS/DATA
2.1P	VALIDATE P/L CMMDS/DATA
6.4	DEVELOP H/W INTEG CONFIG
6.6	DEVELOP S/W INTEG CONFIG
SSIS	SSIS/SCS, NOT SSDS
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2117	CRSS	2.2.1

DESCRIPTOR

OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4	MANAGE DELIVERABLE CUST DATA
2.1	VALIDATE P/L CMMDS/DATA
2.1P	VALIDATE P/L CMMDS/DATA
6.4	DEVELOP H/W INTEG CONFIG
6.6	DEVELOP S/W INTEG CONFIG
SSIS	SSIS/SCS, NOT SSDS
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2118	CRSS	2.2.2

DESCRIPTOR

PERMIT CUST ENCRYPT/DECRYPT OF DATA/COMMANDS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
2.0	MANAGE CUST/OP SUPL DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2119	CRSS	2.2.2.1

DESCRIPTOR

SSIS/SCS ARCHIT. MINIMIZE DEMAND FOR R/T P/L PROCESSOR

DERIVED FUNCTION NUMBER

1.0
2.0
3.0

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA
MANAGE CUST/OP SUPL DATA
SCHEDULE & EXECUTE OPERATIONS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2120	CRSS	2.2.3

DESCRIPTOR

PACKETIZE SSIS/SCS TO CUST COMPUTER INTERCHANGE

DERIVED FUNCTION NUMBER

1.1
1.2
2.1
2.1P
SSIS
TMIS

FUNCTION TITLE

MANAGE REAL TIME DATA RETURN
MANAGE DELAYABLE DATA RETURN
VALIDATE P/L CMMDS/DATA
VALIDATE P/L CMMDS/DATA
SSIS/SCS, NOT SSDS
TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2121	CRSS	2.2.3.1

DESCRIPTOR

PROVIDE PACKETIZED ANCILLARY DATA TO PAYLOADS

DERIVED FUNCTION NUMBER

2.4
2.4P

FUNCTION TITLE

PROVIDE ANCILLARY DATA
PROVIDE ANCILLARY DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2122	CRSS	2.2.3.2

DESCRIPTOR

IMPOSE MIN PACKET REQ'TS ON P/L FOR LAN

DERIVED FUNCTION NUMBER

1.1
1.2

FUNCTION TITLE

MANAGE REAL TIME DATA RETURN
MANAGE DELAYABLE DATA RETURN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2123	CRSS	2.2.3.3

DESCRIPTOR

CUST PROVIDES IMPROVED BIT-ERROR RATES

DERIVED FUNCTION NUMBER

4.2.5.3
4.2.5.3P
4.2.5.4
4.2.5.4P

FUNCTION TITLE

COMM STATUS MONITORING
COMM STATUS MONITORING
COMM FAILURE DETECTION/RECOV
COMM FAILURE DETECTION/RECOV

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2124	CRSS	2.2.3.4

DESCRIPTOR

DELIVER CUST DATA SETS INTACT WITHOUT KNOWING CONTENTS

DERIVED FUNCTION NUMBER

1.0

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2125	CRSS	2.2.3.5

DESCRIPTOR

PACKET REQ'TS MUST NOT PRECLUDE TDM

DERIVED FUNCTION NUMBER

1.1
1.2
4.2.5.1
4.2.5.1P
4.2.5.2
4.2.5.2P

FUNCTION TITLE

MANAGE REAL TIME DATA RETURN
MANAGE DELAYABLE DATA RETURN
COMMUNICATION NETWORK CTRL
COMMUNICATION NETWORK CTRL
COMMUNICATION EQUIP CTRL
COMMUNICATION EQUIP CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2126	CRSS	2.2.4

DESCRIPTOR

STD INTERFACE, PROTOCOL & FORMAT HEADER FOR ARCHIVED DATA

DERIVED FUNCTION NUMBER

1.4
1.5
SSIS

FUNCTION TITLE

MANAGE DELIVERABLE CUST DATA
MANAGE DELIVERABLE CORE DATA
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2127	CRSS	3.1.2.1

DESCRIPTOR

PROVIDE TRANSPARENT DATA LINK FROM P/L TO CUST GSE

<u>DERIVED FUNCTION NUMBER</u>
1.0

<u>FUNCTION TITLE</u>
MANAGE CUST/OP DEL. DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2128	CRSS	3.1.4

DESCRIPTOR

NETWORK DATA HANDLING INDEPENDENT OF CONTENT FORMAT

<u>DERIVED FUNCTION NUMBER</u>
1.0

<u>FUNCTION TITLE</u>
MANAGE CUST/OP DEL. DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2129	CRSS	3.1.5

DESCRIPTOR

PROVIDE LEVEL 0 DATA WITHIN TBD HOURS

<u>DERIVED FUNCTION NUMBER</u>
1.4.5

<u>FUNCTION TITLE</u>
LEVEL 0 CUSTOMER DATA PROC.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2130	CRSS	3.2.1

DESCRIPTOR

PERFORM LEVEL 0 PROCESSING FUNCTIONS AS NECESSARY

<u>DERIVED FUNCTION NUMBER</u>
1.4.5

<u>FUNCTION TITLE</u>
LEVEL 0 CUSTOMER DATA PROC.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2131	CRSS	3.3.2

DESCRIPTOR

SUPPORT REMOTE CENTER LEVEL 1B PROCESSING

<u>DERIVED FUNCTION NUMBER</u>
SSIS

<u>FUNCTION TITLE</u>
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2132	CRSS	3.3.4

DESCRIPTOR

SUPPORT FACILITIES FOR QUICK LOOK USING CUST SOFTWARE

DERIVED FUNCTION NUMBER
SSIS

FUNCTION TITLE
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2133	CRSS	3.3.5

DESCRIPTOR

PROVIDE TBD CUST ONBOARD MASS STORAGE

DERIVED FUNCTION NUMBER
2.5.1
2.5.1P

FUNCTION TITLE
CUST DATA PROC
CUST DATA PROC

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2134	CRSS	3.4.1.8

DESCRIPTOR

ENSURE ARCHIVE DATA CATALOG INTEGRITY

DERIVED FUNCTION NUMBER
1.4.3
SSIS

FUNCTION TITLE
CUSTOMER DATA HANDLING
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2135	CRSS	3.4.1.9

DESCRIPTOR

PROVIDE ARCHIVE FILE CATALOG, INDEX & CUST CONTROLS

DERIVED FUNCTION NUMBER
1.4.6
SSIS

FUNCTION TITLE
CUSTOMER DATA ACCOUNTING
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2136	CRSS	3.4.3

DESCRIPTOR

PROVIDE ARCHIVED DATA TO CUST, TIMES TO BE NEGOTIATED

DERIVED FUNCTION NUMBER
1.4.6
SSIS

FUNCTION TITLE
CUSTOMER DATA ACCOUNTING
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2137	CRSS	3.4.4

DESCRIPTOR

PROVIDE ARCHIVED DATA IN STD FORMATS

DERIVED FUNCTION NUMBER
1.4.6
SSIS

FUNCTION TITLE
CUSTOMER DATA ACCOUNTING
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2138	CRSS	4.1.5

DESCRIPTOR

PERMIT CUST TO USE OWN, IMPROVED PERFORMANCE DATA

DERIVED FUNCTION NUMBER
2.4
2.4P

FUNCTION TITLE
PROVIDE ANCILLARY DATA
PROVIDE ANCILLARY DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2139	CRSS	4.1.6

DESCRIPTOR

PROVIDE TIME TAGGED ANCILLARY DATA SETS

DERIVED FUNCTION NUMBER
1.4.4
2.4
2.4P

FUNCTION TITLE
ANCILLARY DATA ACQUISITION
PROVIDE ANCILLARY DATA
PROVIDE ANCILLARY DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2140	CRSS	4.2.1.1

DESCRIPTOR

PROVIDE CREW ACCESS TO TMIS & SSDS DATA BASE

DERIVED FUNCTION NUMBER
4.3.5
4.5
TMIS

FUNCTION TITLE
OPS & PROCEDURE SUPT
MONITOR & STATUS SYSTEM
TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2141	CRSS	4.2.1.2

DESCRIPTOR

CUST ACCESS TO TMIS AND SSDS DATA BASE SHALL BE USER FRIEND

DERIVED FUNCTION NUMBER
1.4.4
TMIS

FUNCTION TITLE
ANCILLARY DATA ACQUISITION
TECHNICAL MGMT INFORMATION SYS

REQUIREMENT # : 2141 (Continued)

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2142	CRSS	4.2.1.3

DESCRIPTOR
TMIS, SSDS DATA BASE ACCESS BY DIAL UP LINE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4.4	ANCILLARY DATA ACQUISITION
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2143	CRSS	4.2.1.3.1

DESCRIPTOR
TMIS, SSDS DATA BASE ACCESS VIA STD COMMERCIAL DATA RATES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4.4	ANCILLARY DATA ACQUISITION
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2144	CRSS	5.1.3

DESCRIPTOR
SUPP CUST DATA RATES PER PHASE B RFP

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2145	CRSS	5.1.4

DESCRIPTOR
SINGLE CONTACT TO CUST COMM REALLOCATION REQUESTS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
3.2	DEVELOP SHORT TERM SCHEDULE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2146	CRSS	5.1.5

DESCRIPTOR
PERMIT CUST PROVIDED DIRECT SS-TO-GROUND COMM

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2147	CRSS	5.1.6

DESCRIPTOR

SUPPORT VARIOUS OPTIONS FOR CUSTOMER DATA DISTRIBUTION

DERIVED FUNCTION NUMBER

1.3

1.4

SSIS

FUNCTION TITLE

DATA DISTRIBUTION

MANAGE DELIVERABLE CUST DATA

SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2148	CRSS	5.1.7

DESCRIPTOR

SUPP ELECT & NON-ELECT DATA DISTRIBUTION

DERIVED FUNCTION NUMBER

1.3

1.4

SSIS

FUNCTION TITLE

DATA DISTRIBUTION

MANAGE DELIVERABLE CUST DATA

SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2149	CRSS	5.1.8

DESCRIPTOR

PROVIDE STD TELECOMMUNICATION INTERFACES FOR CUST EQPT

DERIVED FUNCTION NUMBER

GDESIGN

FUNCTION TITLE

GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2150	CRSS	5.2.1

DESCRIPTOR

SUPPORT VIDEO DISTRIBUTION AMONG ELEMENTS

DERIVED FUNCTION NUMBER

1.0

4.2.5.2

4.2.5.2P

SSIS

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA

COMMUNICATION EQUIP CTRL

COMMUNICATION EQUIP CTRL

SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2151	CRSS	5.2.2

DESCRIPTOR

SUPPORT VIDEO DISTRIBUTION TO CUSTOMER

DERIVED FUNCTION NUMBER

1.4

4.2.5.2

FUNCTION TITLE

MANAGE DELIVERABLE CUST DATA

COMMUNICATION EQUIP CTRL

REQUIREMENT # : 2151 (Continued)

4.2.5.2P
SSIS

COMMUNICATION EQUIP CTRL
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2152	CRSS	5.2.4

DESCRIPTOR
SUPPORT VIDEO COMMUNICATION PRIVACY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
4.2.5.2	COMMUNICATION EQUIP CTRL
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2153	CRSS	5.2.5

DESCRIPTOR
SUPPORT DIST OF NTSC VIDEO SIGNALS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
4.2.5.2	COMMUNICATION EQUIP CTRL
4.2.5.2P	COMMUNICATION EQUIP CTRL
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2154	CRSS	5.2.7

DESCRIPTOR
PROVIDE VIDEO SIGNAL COLLECTION SUPP EQPT/PROCEDURES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2155	CRSS	5.2.8

DESCRIPTOR
DESIGN VIDEO DIST ACCESS TO UNAUTHORIZED CUSTOMERS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.1	VALIDATE P/L CMMDS/DATA
2.1P	VALIDATE P/L CMMDS/DATA
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2156	CRSS	5.2.9

DESCRIPTOR

PROVIDE & SCHED SUFFICIENT UPLINK/DOWNLINK VIDEO CHANNELS

DERIVED FUNCTION NUMBER

3.2

GDESIGN

FUNCTION TITLEDEVELOP SHORT TERM SCHEDULE
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2157	CRSS	5.3.1

DESCRIPTOR

SUPPORT AUDIO DIST. AMONG ELEMENTS

DERIVED FUNCTION NUMBER

1.0

4.2.5.2

SSIS

FUNCTION TITLEMANAGE CUST/OP DEL. DATA
COMMUNICATION EQUIP CTRL
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2158	CRSS	5.3.2

DESCRIPTOR

SUPPORT AUDIO DIST. TO CUSTOMERS

DERIVED FUNCTION NUMBER

1.4

4.2.5.2

SSIS

FUNCTION TITLEMANAGE DELIVERABLE CUST DATA
COMMUNICATION EQUIP CTRL
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2159	CRSS	5.3.4

DESCRIPTOR

SUPPORT AUDIO COMMUNICATION PRIVACY

DERIVED FUNCTION NUMBER

1.0

4.2.5.2

SSIS

FUNCTION TITLEMANAGE CUST/OP DEL. DATA
COMMUNICATION EQUIP CTRL
SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2160	CRSS	5.3.5

DESCRIPTOR

SUPPORT TELECONFERENCING WITH SPACE NODE

DERIVED FUNCTION NUMBER

1.0

4.2.5.2

FUNCTION TITLEMANAGE CUST/OP DEL. DATA
COMMUNICATION EQUIP CTRL

REQUIREMENT # : 2160 (Continued)

SSIS

SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2161	CRSS	5.4.1

DESCRIPTOR

PROVIDE DIGITAL DATA COMM AMONG ELEMENTS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4	MANAGE DELIVERABLE CUST DATA
2.1	VALIDATE P/L CMMDS/DATA
2.1P	VALIDATE P/L CMMDS/DATA
4.2.5.2	COMMUNICATION EQUIP CTRL
4.2.5.2P	COMMUNICATION EQUIP CTRL
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2162	CRSS	5.4.2

DESCRIPTOR

PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
2.0	MANAGE CUST/OP SUPL DATA
4.2.5.1	COMMUNICATION NETWORK CTRL
4.2.5.1P	COMMUNICATION NETWORK CTRL
4.2.5.2	COMMUNICATION EQUIP CTRL
4.2.5.2P	COMMUNICATION EQUIP CTRL
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2163	CRSS	5.4.3

DESCRIPTOR

CUST DATA DELIVERED W/O ALTERING CONTENTS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4.5	LEVEL 0 CUSTOMER DATA PROC.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2164	CRSS	5.4.4

DESCRIPTOR

PROVIDE STD INTERFACE TO CUST ENCRYP/DECRYPT EQPT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4	MANAGE DELIVERABLE CUST DATA
2.1	VALIDATE P/L CMMDS/DATA

REQUIREMENT # : 2164 (Continued)

2.1P	VALIDATE P/L CMMDS/DATA
6.4	DEVELOP H/W INTEG CONFIG
6.6	DEVELOP S/W INTEG CONFIG
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2165	CRSS	5.4.5

DESCRIPTOR
SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.0	MANAGE CUST/OP DEL. DATA
2.0	MANAGE CUST/OP SUPL DATA
4.3.2.1	CAUTION & WARNING
4.3.2.1P	CAUTION & WARNING
4.3.2.4	SAFETY DEVICE MGMT
4.3.2.4P	SAFETY DEVICE MGMT
5.1.2.6	RECONFIG/DISCONNECT P/L,CORE
5.1.2.6P	RECONFIG/DISCONNECT P/L,CORE
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2166	CRSS	6.1.2

DESCRIPTOR
SUPP P/L COMMAND GENERATION FROM CUST FOR GND CTL CTR, SS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.1	VALIDATE P/L CMMDS/DATA
2.1P	VALIDATE P/L CMMDS/DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2167	CRSS	6.1.3

DESCRIPTOR
ENABLE CUST P.L CTL AS IN OWN LABORATORY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2168	CRSS	6.1.3.1

DESCRIPTOR
COMM/DATA UPLINK/DOWNLINK TRANSPARENT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2169	CRSS	6.1.5

DESCRIPTOR

SUPPORT CUST P/L INTERACTION BY REMOTE TERMINALS

DERIVED FUNCTION NUMBER1.4
2.1
2.1PFUNCTION TITLEMANAGE DELIVERABLE CUST DATA
VALIDATE P/L CMMDS/DATA
VALIDATE P/L CMMDS/DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2170	CRSS	6.1.5.1

DESCRIPTOR

WORK STATIONS GENERATE CMMDS, ALLOWS SSIS COMM

DERIVED FUNCTION NUMBER1.0
2.1
2.1PFUNCTION TITLEMANAGE CUST/OP DEL. DATA
VALIDATE P/L CMMDS/DATA
VALIDATE P/L CMMDS/DATA

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2171	CRSS	6.1.5.2.1

DESCRIPTOR

PROVIDE WORKSTATION AT CUST CTL FAC

DERIVED FUNCTION NUMBER

GDESIGN

FUNCTION TITLE

GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2172	CRSS	6.1.5.2.2

DESCRIPTOR

PROVIDE FLIGHT WORKSTATION

DERIVED FUNCTION NUMBER

GDESIGN

FUNCTION TITLE

GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2173	CRSS	6.1.5.2.4

DESCRIPTOR

PERMIT CUST TO GENERATE CONTROLS FROM WORKSTATION

DERIVED FUNCTION NUMBER2.1
2.1P
3.1FUNCTION TITLEVALIDATE P/L CMMDS/DATA
VALIDATE P/L CMMDS/DATA
DEVELOP RECURRING OPS MASTERS

REQUIREMENT # : 2173 (Continued)

3.2
6.0

DEVELOP SHORT TERM SCHEDULE
DEVELOP, SIM, INTEGRATE & TRAIN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2174	CRSS	6.2.1.3

DESCRIPTOR

MAKE R/T OPS CAPABILITY AVAILABLE TO CREW AND GROUND

DERIVED FUNCTION NUMBER

1.0
2.0
3.3

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA
MANAGE CUST/OP SUPL DATA
DEVELOP OP EVENT SCHEDULE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2175	CRSS	6.4.1

DESCRIPTOR

PROVIDE P/L INFO TO CREW ON TERMINAL & HARDCOPY

DERIVED FUNCTION NUMBER

1.1
GDESIGN

FUNCTION TITLE

MANAGE REAL TIME DATA RETURN
GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2176	CRSS	6.4.2.1

DESCRIPTOR

PROVIDE STD S/W FOR ONBOARD P/L DATA DISPLAY

DERIVED FUNCTION NUMBER

1.1

FUNCTION TITLE

MANAGE REAL TIME DATA RETURN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2177	CRSS	6.4.1.2

DESCRIPTOR

FLIGHT TERMINAL EQPT FUNCTIONALLY SAME AS COMMERCIAL

DERIVED FUNCTION NUMBER

GDESIGN

FUNCTION TITLE

GENERAL DESIGN REQUIREMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2178	CRSS	7.2.3

DESCRIPTOR
PROVIDE MISSION SUPPORT THRU ONBOARD WORKSTATIONS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
GDESIGN	GENERAL DESIGN REQUIREMENT
TMIS	TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2179	CRSS	7.3.4.1

DESCRIPTOR
LOGICALLY SEPARATE RESTR/CONSTR CMMDS FROM GEN UPLINK

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.2	CHECK P/L CMMDS/DATA
2.2P	CHECK P/L CMMDS/DATA
3.3	DEVELOP OP EVENT SCHEDULE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2180	CRSS	8.1.1

DESCRIPTOR
PROVIDE PORTABLE HW I/F VERIFICATION EQPT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
SSIS	SSIS/SCS, NOT SSDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2181	CRSS	8.2.1.5

DESCRIPTOR
PROVIDE REMOTE ACCESS CRT DISPLAY VERIFICATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.5	SIMULATE SS ELEMENTS
6.7	SIMULATE SS PROCESSORS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2182	CRSS	4.2.1

DESCRIPTOR
MAINTAIN CUSTOMER DATA PRODUCTS CATALOG

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.4.6	CUSTOMER DATA ACCOUNTING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2183	CRSS	6.2.1.4

DESCRIPTOR

PROVIDE TRANSP CUST ACCESS TO STORED CMMD SEQUENCES

DERIVED FUNCTION NUMBER

1.0
2.0
3.2.1
3.2.1P

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA
MANAGE CUST/OP SUPL DATA
CONFIRM P/L & CORE SCHEDULES
CONFIRM P/L & CORE SCHEDULES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2184	CRSS	8.5.1

DESCRIPTOR

MAINTAIN STATUS OF END-TO-END COMM. SYSTEM

DERIVED FUNCTION NUMBER

4.5.1
4.5.1P
5.3.2.5

FUNCTION TITLE

MONITOR CORE SYSTEM STATUS
MONITOR CORE SYSTEM STATUS
5.2.4

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2185	CRSS	5.1.8

DESCRIPTOR

PROVIDE STANDARD TELECOMM INTERFACES

DERIVED FUNCTION NUMBER

6.4

FUNCTION TITLE

DEVELOP H/W INTEG CONFIG

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
2186	CRSS	7.3.4

DESCRIPTOR

ANNUNCIATE &/OR AUTO RESTRICT DISCREPANT RESOURCE USE

DERIVED FUNCTION NUMBER

1.4.4
TMIS

FUNCTION TITLE

CORE ANCILLARY DATA ACQ
TECHNICAL MGMT INFORMATION SYS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3001	MRWG	SAAX0201(74)

DESCRIPTOR

DETERMINE SPACE STATION STATE/ORBIT

DERIVED FUNCTION NUMBER

4.1.1.1
4.1.1.1P

FUNCTION TITLE

SS STATE/ORBIT DET.
SS STATE/ORBIT DET.

REQUIREMENT # : 3001 (Continued)

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3002	MRWG	SAAX0009(52)

DESCRIPTOR
DETERMINE CONSTELLATION STATE/ORBIT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.1.2	CONST STATE/ORBIT DET.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3003	MRWG	SAAX006(13)

DESCRIPTOR
DETERMINE EPHEMERIDES

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.1.3	EPHEMERIDES
4.1.1.3P	EPHEMERIDES

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3004	MRWG	TDMX2410(22)

DESCRIPTOR
DETERMINE SPACE STATION ATTITUDE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.1.4	ATTITUDE DET.
4.1.1.4P	ATTITUDE DET.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3005	MRWG	TDMX2260(46)

DESCRIPTOR
PROPOGATE SPACE STATION STATE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.1.5	NAVIGATION STATE PROP.
4.1.1.5P	NAVIGATION STATE PROP.

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3006	MRWG	COMM1105(37)

DESCRIPTOR
PROPAGATE CONSTELLATION STATE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.1.5	NAVIGATION STATE PROP.
4.1.1.5P	NAVIGATION STATE PROP.

REQUIREMENT # : 3006 (Continued)

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3007	MRWG	COMM1201(75)

DESCRIPTOR
COORDINATE REBOOST

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.2.2	MANEUVER COORDINATION
4.1.2.2P	MANEUVER COORDINATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3008	MRWG	TDMX2120(12)

DESCRIPTOR
COORDINATE ATTITUDE MANEUVER

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.3.2	GENERATE ATTITUDE CMMDS
4.1.3.2P	GENERATE ATTITUDE CMMDS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3009	MRWG	COMM1304(47)

DESCRIPTOR
TARGET COFLIER MANEUVER

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.4.2	MANAGE CONST MANEUVERS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3010	MRWG	SAAX0012(35)

DESCRIPTOR
SCHEDULE RENDEZVOUS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.4.3	SCHED DEPLOY/RENDEZVOUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3011	MRWG	SAAX0307(28)

DESCRIPTOR
CONTROL TEMPERATURE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.2.1	MANAGE THERMAL LOAD
4.2.2.1P	MANAGE THERMAL LOAD

REQUIREMENT # : 3011 (Continued)

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3012	MRWG	SAAX0403(28)

DESCRIPTOR
MANAGE THERMAL LOAD

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.2.2.1	MANAGE THERMAL LOAD
4.2.2.1P	MANAGE THERMAL LOAD

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3013	MRWG	COMM1014(30)

DESCRIPTOR
UPDATE TIME

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.6.2	TIME UPDATE
4.1.6.2P	TIME UPDATE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3014	MRWG	SAAX0001(62)

DESCRIPTOR
MESSAGE TIME TAGGING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.1	MANAGE REAL TIME DATA RETURN
1.2	MANAGE DELAYABLE DATA RETURN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3015	MRWG	SAAX0017(81)

DESCRIPTOR
IN ORBIT TRAINING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.8	CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3016	MRWG	TDMX2060(45)

DESCRIPTOR
GROUND BASED TRAINING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.8	CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3017	MRWG	COMM2012(44)

DESCRIPTOR
CUSTOMER TRAINING SUPPORT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
6.8	CONDUCT TRAINING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3018	MRWG	COMM1309(90)

DESCRIPTOR
INTEGRATED SPACE STATION SCHEDULING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
3.1	DEVELOP RECURRING OPS MASTERS
3.2	DEVELOP SHORT TERM SCHEDULE
3.3	DEVELOP OP EVENT SCHEDULE
3.4	SEQUENCE OPS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3019	MRWG	SAAX0207(3)

DESCRIPTOR
SYSTEM/SUBSYSTEM CONFIGURATION STATUSING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.5	MONITOR & STATUS SYSTEM

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3020	MRWG	SAAX0011(95)

DESCRIPTOR
INTEGRATED SPACE STATION OPERATOR SCHEDULING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
3.1	DEVELOP RECURRING OPS MASTERS
3.2	DEVELOP SHORT TERM SCHEDULE
3.3	DEVELOP OP EVENT SCHEDULE
3.4	SEQUENCE OPS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3021	MRWG	TDMX2020(52)

DESCRIPTOR
COMMAND ENTRY

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.1	VALIDATE P/L CMMDS/DATA

REQUIREMENT # : 3021 (Continued)

2.1P	VALIDATE P/L CMMDS/DATA
2.2	CHECK P/L CMMDS/DATA
2.2P	CHECK P/L CMMDS/DATA
3.4	SEQUENCE OPS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3022	MRWG	SAAX0008(61)

DESCRIPTOR
FLUIDS STATUS DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.5.2P	MONITOR CUSTOMER SYSTEM STATUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3023	MRWG	SAAX0303(8)

DESCRIPTOR
CREW PHYSIOLOGICAL MONITORING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.1.1	CREW PHYSIOLOGICAL MONITOR

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3024	MRWG	SAAX0301(5)

DESCRIPTOR
MEDICAL DIAGNOSTICS SUPPORT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.1.2	MEDICAL DIAG. SUPPORT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3025	MRWG	TDMX2530(8)

DESCRIPTOR
HEALTH RECORD MAINTENANCE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.3.1	HEALTH MAINTENANCE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3026	MRWG	SAAX0301(8)

DESCRIPTOR
NUTRITION ANALYSIS

DERIVED FUNCTION NUMBER
4.3.1.4

FUNCTION TITLE
NUTRITION ANALYSIS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3027	MRWG	TDMX2060(46)

DESCRIPTOR
RMS OPERATIONS

DERIVED FUNCTION NUMBER
4.2.3.2

FUNCTION TITLE
RMS OPERATIONS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3028	MRWG	TDMX2560(37)

DESCRIPTOR
DOCKING OPERATIONS

DERIVED FUNCTION NUMBER
4.2.3.3
4.2.3.3P

FUNCTION TITLE
MANAGE DOCKING/BERTHING
MANAGE DOCKING/BERTHING

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3029	MRWG	COMM1213(36)

DESCRIPTOR
LOGISTICS SCHEDULING

DERIVED FUNCTION NUMBER
7.1

FUNCTION TITLE
DEVELOP LOGISTICS PLAN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3030	MRWG	SAAX0302(24)

DESCRIPTOR
CONTROL PRESSURIZED MODULE ATM COMP

DERIVED FUNCTION NUMBER
4.2.4.1

FUNCTION TITLE
CONTROL ATM PRESS & COMP

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3031	MRWG	COMM1014(14)

DESCRIPTOR
GROUND TRACK DETERMINATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.4.1.1	GND TRACK DETERMINATION
4.4.1.1P	GND TRACK DETERMINATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3032	MRWG	SAAX0004(12)

DESCRIPTOR
VENTING EFFECTS DETERMINATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.4.2.1	VENTING EFFECTS DET

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3033	MRWG	SAAX0207(4)

DESCRIPTOR
MAGNETIC FIELD DETERMINATION

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.4.1.2	MAGNETIC FIELD DETERMINATION
4.4.1.2P	MAGNETIC FIELD DETERMINATION

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3034	MRWG	COMM1304(11)

DESCRIPTOR
POWERED GUIDANCE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.1.4.2	MANAGE CONST MANEUVERS
4.1.4.3	SCHED DEPLOY/RENDEZVOUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3035	MRWG	COMM1110(38)

DESCRIPTOR
SPACE STATION CUSTOMER SYSTEM STATUS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.5.2P	MONITOR CUSTOMER SYSTEM STATUS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3036	MRWG	COMM1312(20)

DESCRIPTOR
GROUND CUSTOMER SYSTEM STATUS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.5.2	MONITOR CUSTOMER SYSTEM STATUS
4.5.2P	MONITOR CUSTOMER SYSTEM STATUS
5.2	MANAGE GROUND SYS FACILITIES
6.5	SIMULATE SS ELEMENTS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3037	MRWG	TDMX2070(42)

DESCRIPTOR
RELAY CUSTOMER REALTIME/QUICK LOOK DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.1	MANAGE REAL TIME DATA RETURN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3038	MRWG	SAAX0011(78)

DESCRIPTOR
RELAY CUSTOMER BULK DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
1.2	MANAGE DELAYABLE DATA RETURN

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3039	MRWG	COMM1206(46)

DESCRIPTOR
CUSTOMER DATA PROCESSING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.1	CUST DATA PROC
2.5.1P	CUST DATA PROC

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3040	MRWG	SAAX0305(32)

DESCRIPTOR
CUSTOMER PROCESS CONTROL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.2	CUSTOMER P/L OPS
2.5.2P	CUSTOMER P/L OPS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3041	MRWG	COMM1213(32)

DESCRIPTOR

CUSTOMER SOFTWARE DEVELOPMENT SUPPORT

DERIVED FUNCTION NUMBER6.6
6.7
6.9FUNCTION TITLEDEVELOP S/W INTEG CONFIG
SIMULATE SS PROCESSORS
SOFTWARE DEVELOPMENT

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3042	MRWG	SAAX0005(44)

DESCRIPTOR

CUSTOMER PACKAGE VERIFICATION

DERIVED FUNCTION NUMBER6.2
6.3
6.4
6.5FUNCTION TITLEDEV COMM MODEL CONFIG
SIMULATE SS COMMUNICATION
DEVELOP H/W INTEG CONFIG
SIMULATE SS ELEMENTS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3043	MRWG	SAAX0019(59)

DESCRIPTOR

PAYLOAD CHECKOUT SERVICES

DERIVED FUNCTION NUMBER

2.5.5

FUNCTION TITLE

CUST P/L C/O & SERVICE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3044	MRWG	COMM1117(37)

DESCRIPTOR

PAYLOAD ACTIVATION/SAFING

DERIVED FUNCTION NUMBER2.5.2
2.5.2P
2.5.5FUNCTION TITLECUSTOMER P/L OPS
CUSTOMER P/L OPS
CUST P/L C/O & SERVICE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3045	MRWG	COMM1204(36)

DESCRIPTOR

PAYLOAD OPERATIONS SCHEDULING

DERIVED FUNCTION NUMBER

3.0

FUNCTION TITLE

SCHEDULE & EXECUTE OPERATIONS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3046	MRWG	COMM1309(11)

DESCRIPTOR
OTV SERVICING

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.1	OTV SERVICE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3047	MRWG	TDMX2570(11)

DESCRIPTOR
ROTV CHECKOUT/DIAGNOSTICS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.2	OTV CHECKOUT, DIAGNOSTICS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3048	MRWG	COMM1010(11)

DESCRIPTOR
OTV DEPLOYMENT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.3.3	OTV DEPLOYMENT/RETRIEVAL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3049	MRWG	SAAX0020(49)

DESCRIPTOR
OMV RECHARGE

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.1	OMV SERVICE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3050	MRWG	TDMX2120(49)

DESCRIPTOR
OMV REFUEL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.1	OMV SERVICE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3051	MRWG	COMM1304(49)

DESCRIPTOR
OMV CHECKOUT/DIAGNOSTICS

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.2	OMV CHECKOUT/DIAGNOSTICS

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3052	MRWG	SAAX0013(49)

DESCRIPTOR
OMV DEPLOYMENT

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.3	OMV DEPLOYMENT/RETRIEVAL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3053	MRWG	SAAX0012(40)

DESCRIPTOR
OMV REMOTE OPERATIONS CONTROL

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
2.5.4.4	REMOTE OPERATION CTRL

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3054	MRWG	TDMX2220(54)

DESCRIPTOR
RELATIVE RANGE, RATE, ATTITUDE DATA

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.4.3.1	RELATIVE RANGE & RATE

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3055	MRWG	SAAX0110(35)

DESCRIPTOR
ENVIRONMENTAL MONITOR

<u>DERIVED FUNCTION NUMBER</u>	<u>FUNCTION TITLE</u>
4.4.2.2	ENVIRONMENTAL MONITOR
4.4.2P	ENVIRONMENTAL MONITOR

<u>REQUIREMENT #</u>	<u>DOCUMENT</u>	<u>PARAGRAPH #</u>
3056	MRWG	TDMX2150(51)

DESCRIPTOR
VOLTAGE/CURRENT MONITOR

DERIVED FUNCTION NUMBER

4.5.2

4.5.2P

5.1.2

FUNCTION TITLE

MONITOR CUSTOMER SYSTEM STATUS

MONITOR CUSTOMER SYSTEM STATUS

FLIGHT DATA RESOURCE MGMT

Appendix A-6

Bottom Up Traceability Report

The bottom-up traceability report maps each function to the requirements that gave rise to the function. The function is identified by function number and abbreviated function title. The requirements are identified by paragraph number from the document from which they were extracted. The document can be identified from the requirement number field. Requirements numbered from 1000-1999 come from Reference 1, requirements numbered from 2000-2999 come from Reference 2, and requirements numbered from 3000-3999 come from the analysis of Reference 3. The requirements is further identified by a brief descriptor.

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FUNCTION #

1.0

FUNCTION TITLE

MANAGE CUST/OP DEL. DATA

PARAGRAPHNUMBERREQ# DESCRIPTOR

1.1.9	2005	CUSTOMER OPTION FOR REAL TIME P/L INTERACTION
1.2.1	2109	SUPPORT PEAK AND AVER. DATA RATES FROM PHASE B RFP
1.2.2	2110	PROVIDE END-TO-END BIT-ERROR RATES PER PHASE B RFP
1.2.3	2111	SUPP. AGGREGATE END-TO-END RATES THROUGHPUT PER PHASE B RFP
1.2.4	2112	PROVIDE CUST. DATA STORAGE PER PHASE B RFP
2.2.2	2118	PERMIT CUST ENCRYPT/DECRYPT OF DATA/COMMANDS
2.2.2.1	2119	SSIS/SCS ARCHIT. MINIMIZE DEMAND FOR R/T P/L PROCESSOR
2.2.3.4	2124	DELIVER CUST DATA SETS INTACT WITHOUT KNOWING CONTENTS
3.1.2.1	2127	PROVIDE TRANSPARENT DATA LINK FROM P/L TO CUST GSE
3.1.4	2128	NETWORK DATA HANDLING INDEPENDENT OF CONTENT FORMAT
5.1.1	2027	HANDLE CUST AUDIO, VIDEO AND DIGITAL DATA/COMMANDS
5.2.1	2150	SUPPORT VIDEO DISTRIBUTION AMONG ELEMENTS
5.2.10	2020	SUPPORT TELECONFERENCING WITH SPACE NODE
5.2.3	2031	SUPPORT VIDEO RECORD/PLAYBACK BETWEEN SSP ELEMENTS
5.2.4	2152	SUPPORT VIDEO COMMUNICATION PRIVACY
5.2.5	2153	SUPPORT DIST OF NTSC VIDEO SIGNALS
5.3.1	2157	SUPPORT AUDIO DIST. AMONG ELEMENTS
5.3.3	2032	SUPP AUDIO RECORD/PLAYBACK BETWEEN SSP ELEMENTS
5.3.4	2159	SUPPORT AUDIO COMMUNICATION PRIVACY
5.3.5	2160	SUPPORT TELECONFERENCING WITH SPACE NODE
5.4.2	2162	PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE
5.4.5	2165	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA
6.1.5.1	2170	WORK STATIONS GENERATE CMMDS, ALLOWS SSIS COMM
6.2.1	2040	ALLOW CUSTOMER TO OPERATE P/L REAL TIME
6.2.1.3	2174	MAKE R/T OPS CAPABILITY AVAILABLE TO CREW AND GROUND
6.2.1.4	2183	PROVIDE TRANSP CUST ACCESS TO STORED CMMD SEQUENCES
6.2.1.5	2044	SUPPORT CUSTOMER PROCESSOR LOADING/DUMPS
8.5.1	2085	VERIFY END-TO-END CUST DATA THROUGHPUT
C-2-3.1.2	1003	PROVIDE S.S. P/L COM & DATA HANDLING
C-2-3.1.3	1006	CUST. PLATFORM/FREE FLIER PAYLOAD OPERATION AND MONITOR
C-2-3.1.3	1007	CUST. DATA MGMT. SERVICES
C-3-2.4.F	1023	COOP OPS WITH PLATFORM/PAYLOAD
C-3-2.4.J	1026	GROUND CONTROL CAPABILITY OF CRITICAL SYSTEMS
C-3-3.1.D	1033	SECURE COMMUNICATION PROVIDED PY SSP
C-3-3.2.H	1039	PROPRIETARY INFORMATION SECURITY
C-4-2.2.5.3.L	1069	SUPPORT P/L COMMAND & DATA OPS
C-4-2.2.6.2.H	1083	CUSTOMER DATA COMMUNICATION

FUNCTION #

1.1

FUNCTION TITLE

MANAGE REAL TIME DATA RETURN

PARAGRAPHNUMBERREQ# DESCRIPTOR

2.2.3	2120	PACKETIZE SSIS/SCS TO CUST COMPUTER INTERCHANGE
2.2.3.2	2122	IMPOSE MIN PACKET REQ'TS ON P/L FOR LAN
2.2.3.5	2125	PACKET REQ'TS MUST NOT PRECLUDE TDM
3.1.2	2008	PROVIDE REAL TIME, RAW P/L DATA TO CUSTOMER
3.2.3	2013	PROVIDE LEVEL 0 DATA QUICK LOOK CAPABILITY AS STD. SERVICE

FUNCTION # : 1.1 (Continued)

6.4.1	2175	PROVIDE P/L INFO TO CREW ON TERMINAL & HARDCOPY
6.4.2.1	2176	PROVIDE STD S/W FOR ONBOARD P/L DATA DISPLAY
C-4-2.2.5.3.K	1068	SUBSYSTEM MONITOR & CTRL BY CREW, GROUND
SAAX0001(62)	3014	MESSAGE TIME TAGGING
TDMX2070(42)	3037	RELAY CUSTOMER REALTIME/QUICK LOOK DATA

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.1.3	MONITOR REAL TIME DATA

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
7.1.1	2051	CUSTOMER DATA TRACKING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.1.3P	MONITOR REAL TIME DATA

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
7.1.1	2051	CUSTOMER DATA TRACKING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.2	MANAGE DELAYABLE DATA RETURN

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
2.2.3	2120	PACKETIZE SSIS/SCS TO CUST COMPUTER INTERCHANGE
2.2.3.2	2122	IMPOSE MIN PACKET REQ'TS ON P/L FOR LAN
2.2.3.5	2125	PACKET REQ'TS MUST NOT PRECLUDE TDM
SAAX0001(62)	3014	MESSAGE TIME TAGGING
SAAX0011(78)	3038	RELAY CUSTOMER BULK DATA

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.2.3	MONITOR DELAY DATA

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
7.1.1	2051	CUSTOMER DATA TRACKING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.2.3P	MONITOR DELAY DATA

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
7.1.1	2051	CUSTOMER DATA TRACKING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.3	DATA DISTRIBUTION

<u>PARAGRAPH NUMBER</u>

<u>REQ#</u>	<u>DESCRIPTOR</u>
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3.2.3	2013 PROVIDE LEVEL 0 DATA QUICK LOOK CAPABILITY AS STD. SERVICE
5.1.4	2029 PROVIDE FOR REALTIME REALLOC OF DATA DIST RESOURCES
5.1.6	2147 SUPPORT VARIOUS OPTIONS FOR CUSTOMER DATA DISTRIBUTION
5.1.7	2148 SUPP ELECT & NON-ELECT DATA DISTRIBUTION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.3.2	DATA CAPTURE

<u>PARAGRAPH NUMBER</u>

<u>REQ#</u>	<u>DESCRIPTOR</u>
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7.1.1	2051 CUSTOMER DATA TRACKING
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<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.4	MANAGE DELIVERABLE CUST DATA

<u>PARAGRAPH NUMBER</u>

<u>REQ#</u>	<u>DESCRIPTOR</u>
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2.1.1	2113 DEFINE CUST INTERFACE STANDARDS PER ISO/OSI
2.1.1.1	2114 USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY
2.1.2	2115 USE EXISTING STDS FOR FIRST 3 OSI LAYERS
2.1.2.1	2116 USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL
2.2.1	2117 OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES
2.2.4	2126 STD INTERFACE, PROTOCOL & FORMAT HEADER FOR ARCHIVED DATA
3.1.1	2007 CATALOG, ARCHIVE, MANAGE, DISSEMINATE CUSTOMER DATA
3.1.2	2008 PROVIDE REAL TIME, RAW P/L DATA TO CUSTOMER
5.1.2	2028 MANAGE TRANSFER OF CUSTOMER DATA
5.1.6	2147 SUPPORT VARIOUS OPTIONS FOR CUSTOMER DATA DISTRIBUTION
5.1.7	2148 SUPP ELECT & NON-ELECT DATA DISTRIBUTION
5.2.2	2151 SUPPORT VIDEO DISTRIBUTION TO CUSTOMER
5.3.2	2158 SUPPORT AUDIO DIST. TO CUSTOMERS
5.4.1	2161 PROVIDE DIGITAL DATA COMM AMONG ELEMENTS
5.4.4	2164 PROVIDE STD INTERFACE TO CUST ENCRYPT/DECRYPT EQPT
6.1.5	2169 SUPPORT CUST P/L INTERACTION BY REMOTE TERMINALS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.4.2	CUSTOMER DATA CAPTURE

<u>PARAGRAPH NUMBER</u>

<u>REQ#</u>	<u>DESCRIPTOR</u>
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7.1.1	2051 CUSTOMER DATA TRACKING
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<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.4.3	CUSTOMER DATA HANDLING
<u>PARAGRAPH NUMBER</u>	<u>REQ# DESCRIPTOR</u>
3.4.1.2	2087 MAINT SHORT TERM (1 WEEK) CUST DATA ARCH TO ENSURE DATA DEL.
3.4.1.8	2134 ENSURE ARCHIVE DATA CATALOG INTEGRITY
3.4.2	2097 PROVIDE ONLINE CUSTOMER DATA STORAGE FOR 12 HOURS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.4.4	ANCILLARY DATA ACQUISITION
<u>PARAGRAPH NUMBER</u>	<u>REQ# DESCRIPTOR</u>
4.1.1	2021 PROVIDE ENGINEERING AND OPERATIONS DATA
4.1.1.1	2022 PROVIDE ANCILLARY DATA TO CUSTOMER EQUIPMENT
4.1.6	2139 PROVIDE TIME TAGGED ANCILLARY DATA SETS
4.2.1	2026 ACCESS TO SS PROG ENG OPER'S, ADMIN AND DESCRIPTIVE INFORM
4.2.1.2	2141 CUST ACCESS TO TMIS AND SSDS DATA BASE SHALL BE USER FRIEND
4.2.1.3	2142 TMIS, SSDS DATA BASE ACCESS BY DIAL UP LINE
4.2.1.3.1	2143 TMIS, SSDS DATA BASE ACCESS VIA STD COMMERCIAL DATA RATES
7.3.4	2186 ANNUNCIATE &/OR AUTO RESTRICT DISCREPANT RESOURCE USE
7.4.2	2068 PROVIDE SS OPERATIONS REPORT ACCESS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.4.5	LEVEL 0 CUSTOMER DATA PROC.
<u>PARAGRAPH NUMBER</u>	<u>REQ# DESCRIPTOR</u>
3.1.1	2006 HANDLE RAW CUST DATA, ROUTINELY PROCESS TO LEVEL 0
3.1.5	2129 PROVIDE LEVEL 0 DATA WITHIN TBD HOURS
3.2.1	2130 PERFORM LEVEL 0 PROCESSING FUNCTIONS AS NECESSARY
3.2.3	2013 PROVIDE LEVEL 0 DATA QUICK LOOK CAPABILITY AS STD. SERVICE
3.3.3	2015 SUPPORT ROUTINE CUSTOMER ANALYSES
5.4.3	2163 CUST DATA DELIVERED W/O ALTERING CONTENTS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
1.4.6	CUSTOMER DATA ACCOUNTING
<u>PARAGRAPH NUMBER</u>	<u>REQ# DESCRIPTOR</u>
3.2.2	2012 PROVIDE CUSTOMER DATA ACCOUNTABILITY
3.4.1.5	2017 SHORT TERM CUSTOMER DATA ARCHIVE CATALOG
3.4.1.6	2018 PROVIDE INVENTORIES OF LEVEL 0 AND 1A DATA
3.4.1.7	2019 LOG DATA TRANSFERS AND ACCESS INFORMATION
3.4.1.9	2135 PROVIDE ARCHIVE FILE CATALOG, INDEX & CUST CONTROLS
3.4.3	2136 PROVIDE ARCHIVED DATA TO CUST, TIMES TO BE NEGOTIATED
3.4.4	2137 PROVIDE ARCHIVED DATA IN STD FORMATS

FUNCTION # : 1.4.6 (Continued)

4.2.1 2182 MAINTAIN CUSTOMER DATA PRODUCTS CATALOG
7.1.1 2051 CUSTOMER DATA TRACKING

FUNCTION #
1.5 FUNCTION TITLE
MANAGE DELIVERABLE CORE DATA

PARAGRAPH
NUMBER REQ# DESCRIPTOR
2.2.4 2126 STD INTERFACE, PROTOCOL & FORMAT HEADER FOR ARCHIVED
DATA

FUNCTION #
1.5.3 FUNCTION TITLE
DATA EXTRACTION

PARAGRAPH
NUMBER REQ# DESCRIPTOR
3.4.1.4 2088 ARCHIVE ENGR./ANC DATA FOR AT LEAST TWO YEARS

FUNCTION #
1.5.3P FUNCTION TITLE
DATA EXTRACTION

PARAGRAPH
NUMBER REQ# DESCRIPTOR
3.4.1.4 2088 ARCHIVE ENGR./ANC DATA FOR AT LEAST TWO YEARS

FUNCTION #
1.5.5 FUNCTION TITLE
ENGINEERING DATA ANALYSIS

PARAGRAPH
NUMBER REQ# DESCRIPTOR
3.4.1.4 2088 ARCHIVE ENGR./ANC DATA FOR AT LEAST TWO YEARS

FUNCTION #
1.5.5P FUNCTION TITLE
ENGINEERING DATA ANALYSIS

PARAGRAPH
NUMBER REQ# DESCRIPTOR
3.4.1.4 2088 ARCHIVE ENGR./ANC DATA FOR AT LEAST TWO YEARS

FUNCTION #
2.0 FUNCTION TITLE
MANAGE CUST/OP SUPL DATA

PARAGRAPH
NUMBER REQ# DESCRIPTOR
1.1.9 2005 CUSTOMER OPTION FOR REAL TIME P/L INTERACTION
2.2.2 2118 PERMIT CUST ENCRYPT/DECRYPT OF DATA/COMMANDS
2.2.2.1 2119 SSIS/SCS ARCHIT. MINIMIZE DEMAND FOR R/T P/L PROCESSOR

FUNCTION # : 2.0 (Continued)

5.1.1	2027	HANDLE CUST AUDIO, VIDEO AND DIGITAL DATA/COMMANDS
5.4.2	2162	PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE
5.4.5	2165	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA
6.1.1	2033	SUPPORT CUSTOMER PAYLOAD COMMAND
6.2.1	2040	ALLOW CUSTOMER TO OPERATE P/L REAL TIME
6.2.1.2	2041	INCLUDE RESTRICTED/CONSTRAINED COMMANDS IN REAL TIME OPS
6.2.1.3	2174	MAKE R/T OPS CAPABILITY AVAILABLE TO CREW AND GROUND
6.2.1.4	2183	PROVIDE TRANSP CUST ACCESS TO STORED CMMD SEQUENCES
6.2.1.4	2042	ALLOW REALTIME AUTOMATED COMMAND SEQ CHANGES
6.2.1.5	2044	SUPPORT CUSTOMER PROCESSOR LOADING/DUMPS
6.3.1	2045	ONBOARD GENERATION OF CUST STORED COMMAND SEQUENCES
8.5.1	2085	VERIFY END-TO-END CUST DATA THROUGHPUT
C-2-3.1.2	1003	PROVIDE S.S. P/L COM & DATA HANDLING
C-2-3.1.3	1006	CUST. PLATFORM/FREE FLIER PAYLOAD OPERATION AND MONITOR
C-3-2.4.J	1026	GROUND CONTROL CAPABILITY OF CRITICAL SYSTEMS
C-3-3.1.D	1033	SECURE COMMUNICATION PROVIDED PY SSP
C-3-3.2.H	1039	PROPRIETARY INFORMATION SECURITY
C-3-3.2.K	1041	CREW/GROUND MODS TO S/W IN OP. SYSTEM
C-4-2.2.5.2.A	1059	STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS
C-4-2.2.5.3.L	1069	SUPPORT P/L COMMAND & DATA OPS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.1	VALIDATE P/L CMMDS/DATA

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
2.1.1	2113	DEFINE CUST INTERFACE STANDARDS PER ISO/OSI
2.1.1.1	2114	USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY
2.1.2	2115	USE EXISTING STDS FOR FIRST 3 OSI LAYERS
2.1.2.1	2116	USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL
2.2.1	2117	OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES
2.2.3	2120	PACKETIZE SSIS/SCS TO CUST COMPUTER INTERCHANGE
3.2.2	2012	PROVIDE CUSTOMER DATA ACCOUNTABILITY
5.2.8	2155	DESIGN VIDEO DIST ACCESS TO UNAUTHORIZED CUSTOMERS
5.4.1	2161	PROVIDE DIGITAL DATA COMM AMONG ELEMENTS
5.4.4	2164	PROVIDE STD INTERFACE TO CUST ENCRYPT/DECRYPT EQPT
6.1.2	2166	SUPP P/L COMMAND GENERATION FROM CUST FOR GND CTL CTR, SS
6.1.4	2035	CHECK CUSTOMER ID TO INSURE AUTHORIZATION
6.1.5	2169	SUPPORT CUST P/L INTERACTION BY REMOTE TERMINALS
6.1.5.1	2170	WORK STATIONS GENERATE CMMDS, ALLOWS SSIS COMM
6.1.5.2.4	2173	PERMIT CUST TO GENERATE CONTROLS FROM WORKSTATION
C-4-2.2.6.2.I	1084	SECURE COMMUNICATION LINKS: COMMAND AUTHENTICATION
TDMX2020(52)	3021	COMMAND ENTRY

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.1P	VALIDATE P/L CMMDS/DATA
<u>PARAGRAPH NUMBER</u>	<u>REQ# DESCRIPTOR</u>
2.1.1	2113 DEFINE CUST INTERFACE STANDARDS PER ISO/OSI
2.1.1.1	2114 USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY
2.1.2	2115 USE EXISTING STDS FOR FIRST 3 OSI LAYERS
2.1.2.1	2116 USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL
2.2.1	2117 OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES
2.2.3	2120 PACKETIZE SSIS/SCS TO CUST COMPUTER INTERCHANGE
3.2.2	2012 PROVIDE CUSTOMER DATA ACCOUNTABILITY
5.2.8	2155 DESIGN VIDEO DIST ACCESS TO UNAUTHORIZED CUSTOMERS
5.4.1	2161 PROVIDE DIGITAL DATA COMM AMONG ELEMENTS
5.4.4	2164 PROVIDE STD INTERFACE TO CUST ENCRYPT/DECRYPT EQPT
6.1.2	2166 SUPP P/L COMMAND GENERATION FROM CUST FOR GND CTL CTR, SS
6.1.4	2035 CHECK CUSTOMER ID TO INSURE AUTHORIZATION
6.1.5	2169 SUPPORT CUST P/L INTERACTION BY REMOTE TERMINALS
6.1.5.1	2170 WORK STATIONS GENERATE CMMDS, ALLOWS SSIS COMM
6.1.5.2.4	2173 PERMIT CUST TO GENERATE CONTROLS FROM WORKSTATION
C-4-2.2.6.2.I	1084 SECURE COMMUNICATION LINKS: COMMAND AUTHENTICATION
TDMX2020(52)	3021 COMMAND ENTRY

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.2	CHECK P/L CMMDS/DATA
<u>PARAGRAPH NUMBER</u>	<u>REQ# DESCRIPTOR</u>
3.2.2	2012 PROVIDE CUSTOMER DATA ACCOUNTABILITY
6.1.3.1	2034 RESTRICTED/CONSTRAINED COMMAND INHIBITION, TRANSMISSION
6.1.6	2036 CHECK FOR COMMAND RESTRICTION
6.1.6.3	2038 PASS THROUGH NON-RESTRICTED COMMANDS
6.1.7	2039 PERMIT INDEPENDENT NON-RESTR CUST OPS, MAINT. CTL, SAFETY
7.2.5	2060 PROVIDE RESTRICTED COMMANDS LIST
7.2.6	2061 SUPPORT RAPID REPLANNING FOR OPPORTUNITIES
7.3.4.1	2179 LOGICALLY SEPARATE RESTR/CONSTR CMMDS FROM GEN UPLINK
7.3.4.1	2066 RETURN DISPOSITION/REASON ON COMMANDS
7.4.1	2067 PROVIDE P/L EVENT HISTORY OPERATIONS REPORT TO CUST
C-2-3.1.3	1127 PAYLOAD OPERATION CONSTRAINTS LIMITED TO SAFETY AND COMPATIB
C-2-3.1.3	1209 P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST
TDMX2020(52)	3021 COMMAND ENTRY

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.2P	CHECK P/L CMMDS/DATA
<u>PARAGRAPH NUMBER</u>	<u>REQ# DESCRIPTOR</u>
3.2.2	2012 PROVIDE CUSTOMER DATA ACCOUNTABILITY
6.1.3.1	2034 RESTRICTED/CONSTRAINED COMMAND INHIBITION, TRANSMISSION
6.1.6	2036 CHECK FOR COMMAND RESTRICTION

FUNCTION # : 2.2P (Continued)

6.1.6.3	2038	PASS THROUGH NON-RESTRICTED COMMANDS
6.1.7	2039	PERMIT INDEPENDENT NON-RESTR CUST OPS, MAINT. CTL, SAFETY
7.2.5	2060	PROVIDE RESTRICTED COMMANDS LIST
7.2.6	2061	SUPPORT RAPID REPLANNING FOR OPPORTUNITIES
7.3.4.1	2066	RETURN DISPOSITION/REASON ON COMMANDS
7.3.4.1	2179	LOGICALLY SEPARATE RESTR/CONSTR CMMDS FROM GEN UPLINK
7.4.1	2067	PROVIDE P/L EVENT HISTORY OPERATIONS REPORT TO CUST
C-2-3.1.3	1127	PAYLOAD OPERATION CONSTRAINTS LIMITED TO SAFETY AND COMPATIB
C-2-3.1.3	1209	P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST
TDMX2020(52)	3021	COMMAND ENTRY

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.3	VALIDATE CORE CMMDS/DATA

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
C-3-3.1.D	1033	SECURE COMMUNICATION PROVIDED PY SSP
C-4-2.2.5.3.K	1068	SUBSYSTEM MONITOR & CTRL BY CREW, GROUND

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.4	PROVIDE ANCILLARY DATA

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
2.2.3.1	2121	PROVIDE PACKETIZED ANCILLARY DATA TO PAYLOADS
4.1.1.1	2022	PROVIDE ANCILLARY DATA TO CUSTOMER EQUIPMENT
4.1.2	2023	PROVIDE TIME REFERENCE, 1 mSEC ACCURACY
4.1.3	2024	PROVIDE ORBIT POSITION, TBD M ACCURACY
4.1.4	2025	PROVIDE ATTITUDE, TBD DEG. ACCURACY
4.1.5	2138	PERMIT CUST TO USE OWN, IMPROVED PERFORMANCE DATA
4.1.6	2139	PROVIDE TIME TAGGED ANCILLARY DATA SETS
C-3-3.1.I	1035	BASIC ANCILLARY DATA PROVIDED
C-4-2.1.3.3	1047	INTERNAL/EXTERNAL CONTAMINATION MONITOR
C-4-2.2.5.3.B	1061	PROVIDE HOUSEKEEPING DATA TO CUST.
C-4-2.2.7.1.B	1089	PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER
C-4-2.2.7.1.C	1090	PROVIDE STATE VECTOR AND TM TO SUPPORT CUSTOMER
C-4-2.2.7.1.T	1104	PROVIDE NAV DATA TO PAYLOAD

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.4P	PROVIDE ANCILLARY DATA

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
2.2.3.1	2121	PROVIDE PACKETIZED ANCILLARY DATA TO PAYLOADS
4.1.1.1	2022	PROVIDE ANCILLARY DATA TO CUSTOMER EQUIPMENT
4.1.2	2023	PROVIDE TIME REFERENCE, 1 mSEC ACCURACY
4.1.3	2024	PROVIDE ORBIT POSITION, TBD M ACCURACY

FUNCTION # : 2.4P (Continued)

4.1.4	2025	PROVIDE ATTITUDE, TBD DEG. ACCURACY
4.1.5	2138	PERMIT CUST TO USE OWN, IMPROVED PERFORMANCE DATA
4.1.6	2139	PROVIDE TIME TAGGED ANCILLARY DATA SETS
C-3-3.1.1	1035	BASIC ANCILLARY DATA PROVIDED
C-4-2.1.3.3	1047	INTERNAL/EXTERNAL CONTAMINATION MONITOR
C-4-2.2.5.3.B	1061	PROVIDE HOUSEKEEPING DATA TO CUST.
C-4-2.2.7.1.B	1089	PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER
C-4-2.2.7.1.C	1090	PROVIDE STATE VECTOR AND TM TO SUPPORT CUSTOMER
C-4-2.2.7.1.T	1104	PROVIDE NAV DATA TO PAYLOAD

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5	SUPPORT CUSTOMER SYS OPERATION

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
C-2-3.1.2	1003	PROVIDE S.S. P/L COM & DATA HANDLING
C-2-3.1.3	1209	P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST
C-3-2.4.F	1023	COOP OPS WITH PLATFORM/PAYLOAD

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.1	CUST DATA PROC

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
3.3.5	2133	PROVIDE TBD CUST ONBOARD MASS STORAGE
7.1.3	2053	PAYLOAD HOUSEKEEPING DATA MONITOR
C-2-3.1.3	1007	CUST. DATA MGMT. SERVICES
COMM1206(46)	3039	CUSTOMER DATA PROCESSING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.1P	CUST DATA PROC

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
3.3.5	2133	PROVIDE TBD CUST ONBOARD MASS STORAGE
7.1.3	2053	PAYLOAD HOUSEKEEPING DATA MONITOR
C-2-3.1.3	1007	CUST. DATA MGMT. SERVICES
COMM1206(46)	3039	CUSTOMER DATA PROCESSING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.2	CUSTOMER P/L OPS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
6.3.1.1	2046	ACTIVATE STORED COMMAND SEQUENCES
6.3.2	2047	STORED PAYLOAD COMMAND ACTIVATED BY ANOTHER STORED COMMAND
7.1.3	2053	PAYLOAD HOUSEKEEPING DATA MONITOR

FUNCTION # : 2.5.2 (Continued)

7.2.6	2061	SUPPORT RAPID REPLANNING FOR OPPORTUNITIES
C-2-3.1.3	1209	P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST
C-2-3.1.3	1005	INDEPENDENT CUST. OPERATION & MONITOR OF PAYLOAD
C-3-3.1.G	1034	INDEPENDENT CUST OPERATION AND MONITOR
COMM1117(37)	3044	PAYLOAD ACTIVATION/SAFING
SAAXO305(32)	3040	CUSTOMER PROCESS CONTROL

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.2P	CUSTOMER P/L OPS

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
6.3.1.1	2046	ACTIVATE STORED COMMAND SEQUENCES
6.3.2	2047	STORED PAYLOAD COMMAND ACTIVATED BY ANOTHER STORED COMMAND
7.1.3	2053	PAYLOAD HOUSEKEEPING DATA MONITOR
7.2.6	2061	SUPPORT RAPID REPLANNING FOR OPPORTUNITIES
C-2-3.1.3	1005	INDEPENDENT CUST. OPERATION & MONITOR OF PAYLOAD
C-2-3.1.3	1209	P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST
C-3-3.1.G	1034	INDEPENDENT CUST OPERATION AND MONITOR
COMM1117(37)	3044	PAYLOAD ACTIVATION/SAFING
SAAXO305(32)	3040	CUSTOMER PROCESS CONTROL

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.3	SUPPORT OTV OPERATIONS

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-2.2.5.3.1	1066	INTERFACE WITH SERVICE VEHICLES IN SUPPORT OF C/O, & LAUNCH

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.3.1	OTV SERVICE

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-2-3.1.7	1012	OTV SERVICING
C-3-3.2.C	1036	OMV/PLATFORM/OTV MAINTENANCE & SERVICING
C-4-1.2	1132	PROVIDE CAPABILITY TO SERVICE OTV-GROWTH
C-4-2.1.2.4	1135	FACILITATE SCHED/UNCHED SERVICING OF SSPE'S
C-4-2.1.2.4.A	1136	SERVICE AND DEPLOY OTV
C-4-3.3.1a	1180	SERVICE OTV
COMM1309(11)	3046	OTV SERVICING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.3.2	OTV CHECKOUT, DIAGNOSTICS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-2-3.1.7	1012 OTV SERVICING
C-3-3.2.C	1036 OMV/PLATFORM/OTV MAINTENANCE & SERVICING
C-4-3.3.1a	1180 SERVICE OTV
TDMX2570(11)	3047 ROTV CHECKOUT/DIAGNOSTICS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.3.3	OTV DEPLOYMENT/RETRIEVAL

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.1.2.4.A	1136 SERVICE AND DEPLOY OTV
C-4-2.2.7.1.M	1099 SUPPORT BERTHING, DOCKING, & SEPERATION OPS
C-4-3.3.4	1123 OTV DEPLOYMENT & RETRIEVAL
COMM1010(11)	3048 OTV DEPLOYMENT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.3.4	OTV OPERATION

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-2-3.1.6	1009 REMOTE SERVICING OF P/L'S, SAT'S, & PLATFORMS VIA OMV & OTV
C-4-2.1.2.4.B	1046 REMOTE PAYLOAD/SAT. SERVICING IN GEOSYNC ORBIT VIA OTV

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.3.5	OTV STATUS (TO CUST)

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-3.3.3	1122 OTV OPERATIONS CONTROL & SAFETY

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.4	SUPPORT OMV OPERATIONS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.5.3.1	1066 INTERFACE WITH SERVICE VEHICLES IN SUPPORT OF C/O, & LAUNCH

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.4.1	OMV SERVICE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-2.1.C	1013 OMV SERVICING & MAINTENANCE
C-3-3.2.C	1036 OMV/PLATFORM/OTV MAINTENANCE & SERVICING

FUNCTION # : 2.5.4.1 (Continued)

C-4-1.2.F	1133 PROVIDE CAPABILITY TO SERVICE OMV
C-4-2.1.2.4	1135 FACILITATE SCHED/UNSCHED SERVICING OF SSPE'S
C-4-3.2.1.A	1119 OMV SERVICING AT SS
SAAX0020(49)	3049 OMV RECHARGE
TDMX2120(49)	3050 OMV REFUEL

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.4.2	OMV CHECKOUT/DIAGNOSTICS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-2.1.C	1013 OMV SERVICING & MAINTENANCE
C-3-3.2.C	1036 OMV/PLATFORM/OTV MAINTENANCE & SERVICING
C-4-3.2.1.A	1119 OMV SERVICING AT SS
COMM1304(49)	3051 OMV CHECKOUT/DIAGNOSTICS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.4.3	OMV DEPLOYMENT/RETRIEVAL

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.7.1.M	1099 SUPPORT BERTHING, DOCKING, & SEPERATION OPS
C-4-3.2.4	1121 OMV DEPLOYMENT/RETRIEVAL
SAAX0013(49)	3052 OMV DEPLOYMENT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.4.4	REMOTE OPERATION CTRL

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-2-3.1.6	1009 REMOTE SERVICING OF P/L'S, SAT'S, & PLATFORMS VIA OMV & OTV
C-2-3.1.6	1010 SERVICING IN GEOSYNC ORBIT
C-4-2.1.2.4.B	1046 REMOTE PAYLOAD/SAT. SERVICING IN GEOSYNC ORBIT VIA OTV
C-4-2.1.2.4.B	1044 REMOTE PAYLOAD/SAT. SERVICE VIA OMV
C-4-3.2.3	1120 OMV OPS CTRL & SAFETY
C-4-3.4.1	1181 OMV REMOTE SERVICING AT PLATFORM
SAAX0012(40)	3053 OMV REMOTE OPERATIONS CONTROL

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.4.5	OMV OPERATIONS CTRL

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-2-3.1.6	1010 SERVICING IN GEOSYNC ORBIT
C-2-3.1.6	1009 REMOTE SERVICING OF P/L'S, SAT'S, & PLATFORMS VIA OMV & OTV

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.5.5	CUST P/L C/O & SERVICE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
7.3.1	2062 SUPPORT FAULT DETECTION/ISOLATION/RECOVERY
7.3.2	2063 DIFFERENTIATE P/L, SSIS FAULTS
C-2-3.1.5	1008 SATELLITE & PAYLOAD SERVICING & C/O
C-2-3.1.7	1011 PAYLOAD INTEGRATION, C/O, AND DEPLOYMENT
C-4-2.1.2.4	1135 FACILITATE SCHED/UNSCHED SERVICING OF SSPE'S
C-4-2.1.2.4.A	1043 SATELLITE & PAYLOAD SERVICING AT SPACE STATION
C-4-2.2.5.3.H	1065 SUPPORT SSPE C/O, ANALYSIS, OPS, & MAINTENANCE
COMM1117(37)	3044 PAYLOAD ACTIVATION/SAFING
SAAX0019(59)	3043 PAYLOAD CHECKOUT SERVICES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
2.6	SSPE C/O & SERVICING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-2.1.1	1014 SSPE BERTHING & SERVICING
C-3-3.2.C	1036 OMV/PLATFORM/OTV MAINTENANCE & SERVICING
C-4-1.2.G	1134 PROVIDE CAPABILITY TO SERVICE UNMANNED SPACECRAFT
C-4-2.1.2.4.B	1044 REMOTE PAYLOAD/SAT. SERVICE VIA OMV
C-4-2.2.5.3.H	1065 SUPPORT SSPE C/O, ANALYSIS, OPS, & MAINTENANCE
C-4-3.10	1126 EMU, MMU AUTOMATIC SERVICING
C4-2.2.11.2.B.2	1116 AUTOMATIC SERVICING OF MMU & EMU EQUIP

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
3.0	SCHEDULE & EXECUTE OPERATIONS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
2.2.2.1	2119 SSIS/SCS ARCHIT. MINIMIZE DEMAND FOR R/T P/L PROCESSOR
6.1.1	2033 SUPPORT CUSTOMER PAYLOAD COMMAND
6.2.1.4.1	2043 VERIFY COMMAND SEQUENCE CHANGES
7.4.1	2067 PROVIDE P/L EVENT HISTORY OPERATIONS REPORT TO CUST
COMM1204(36)	3045 PAYLOAD OPERATIONS SCHEDULING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
3.1	DEVELOP RECURRING OPS MASTERS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
6.1.5.2.4	2173 PERMIT CUST TO GENERATE CONTROLS FROM WORKSTATION
7.2.1	2055 SUPPORT INTERACTIVE P/L PLANNING/SCHEDULING
7.2.2.1	2057 INTEGRATE CUST REQUESTS, SCHEDULE RESOURCES
7.2.4	2059 PROVIDE SS RESOURCES AND AVAILABILITY INFO.
8.4.2	2084 PROVIDE INTERACTIVE REMOTE PLANNED OPER SUBMISSION
C-3-2.4.G	1024 GROUND CTRL CENTER PLAN OPERATIONS
COMM1309(90)	3018 INTEGRATED SPACE STATION SCHEDULING
SAAX0011(95)	3020 INTEGRATED SPACE STATION OPERATOR SCHEDULING

FUNCTION # : 3.1 (Continued)

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
3.2	DEVELOP SHORT TERM SCHEDULE
<u>PARAGRAPH</u>	<u>REQ# DESCRIPTOR</u>
<u>NUMBER</u>	
5.1.4	2145 SINGLE CONTACT TO CUST COMM REALLOCATION REQUESTS
5.2.9	2156 PROVIDE & SCHED SUFFICIENT UPLINK/DOWNLINK VIDEO CHANNELS
6.1.5.2.4	2173 PERMIT CUST TO GENERATE CONTROLS FROM WORKSTATION
6.1.6.2	2037 CHECK RESTRICTED/CONSTRAINED COMMANDS FOR EXECUTION
7.1.2	2052 LONG TERM MISSION PLANNING AND SUPPORT DATA
7.2.1	2055 SUPPORT INTERACTIVE P/L PLANNING/SCHEDULING
7.2.2.1	2057 INTEGRATE CUST REQUESTS, SCHEDULE RESOURCES
7.2.4	2059 PROVIDE SS RESOURCES AND AVAILABILITY INFO.
7.2.6	2061 SUPPORT RAPID REPLANNING FOR OPPORTUNITIES
C-3-2.4.C	1019 NEARTERM PLANNING ON BOARD
C-3-2.4.G	1024 GROUND CTRL CENTER PLAN OPERATIONS
COMM1309(90)	3018 INTEGRATED SPACE STATION SCHEDULING
SAAX0011(95)	3020 INTEGRATED SPACE STATION OPERATOR SCHEDULING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
3.2.1	CONFIRM P/L & CORE SCHEDULES
<u>PARAGRAPH</u>	<u>REQ# DESCRIPTOR</u>
<u>NUMBER</u>	
0.3	2003 COORDINATE UPLINK/DOWNLINK WITH NCC VIA SSCC
6.2.1.4	2183 PROVIDE TRANSP CUST ACCESS TO STORED CMMD SEQUENCES
7.2.2	2056 SUPPORT REQUESTS FOR SSP RESOURCES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
3.2.1P	CONFIRM P/L & CORE SCHEDULES
<u>PARAGRAPH</u>	<u>REQ# DESCRIPTOR</u>
<u>NUMBER</u>	
0.3	2003 COORDINATE UPLINK/DOWNLINK WITH NCC VIA SSCC
6.2.1.4	2183 PROVIDE TRANSP CUST ACCESS TO STORED CMMD SEQUENCES
7.2.2	2056 SUPPORT REQUESTS FOR SSP RESOURCES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
3.2.6	CHECK UNRES. R/C CMMDs
<u>PARAGRAPH</u>	<u>REQ# DESCRIPTOR</u>
<u>NUMBER</u>	
6.1.3.1	2034 RESTRICTED/CONSTRAINED COMMAND INHIBITION, TRANSMISSION
6.1.6.2	2037 CHECK RESTRICTED/CONSTRAINED COMMANDS FOR EXECUTION
6.2.1	2040 ALLOW CUSTOMER TO OPERATE P/L REAL TIME
6.2.1.2	2041 INCLUDE RESTRICTED/CONSTRAINED COMMANDS IN REAL TIME OPS

FUNCTION # : 3.2.6 (Continued)

FUNCTION # FUNCTION TITLE
3.2.6P MAINTAIN SHORT TERM SCHEDULES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
6.1.6.2	2037 CHECK RESTRICTED/CONSTRAINED COMMANDS FOR EXECUTION
6.2.1	2040 ALLOW CUSTOMER TO OPERATE P/L REAL TIME
6.2.1.2	2041 INCLUDE RESTRICTED/CONSTRAINED COMMANDS IN REAL TIME OPS

FUNCTION # FUNCTION TITLE
3.2.7 MAINTAIN SHORT TERM SCHEDULES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
6.1.6.2	2037 CHECK RESTRICTED/CONSTRAINED COMMANDS FOR EXECUTION
6.2.1	2040 ALLOW CUSTOMER TO OPERATE P/L REAL TIME
6.2.1.2	2041 INCLUDE RESTRICTED/CONSTRAINED COMMANDS IN REAL TIME OPS

FUNCTION # FUNCTION TITLE
3.3 DEVELOP OP EVENT SCHEDULE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
5.1.4	2029 PROVIDE FOR REALTIME REALLOC OF DATA DIST RESOURCES
6.2.1.3	2174 MAKE R/T OPS CAPABILITY AVAILABLE TO CREW AND GROUND
6.3.2	2047 STORED PAYLOAD COMMAND ACTIVATED BY ANOTHER STORED COMMAND
7.3.4.1	2179 LOGICALLY SEPARATE RESTR/CONSTR CMMDS FROM GEN UPLINK
COMM1309(90)	3018 INTEGRATED SPACE STATION SCHEDULING
SAAX0011(95)	3020 INTEGRATED SPACE STATION OPERATOR SCHEDULING

FUNCTION # FUNCTION TITLE
3.3.2 CHECK R/C REAL TIME CMMDS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
6.1.3.1	2034 RESTRICTED/CONSTRAINED COMMAND INHIBITION, TRANSMISSION
6.1.6.2	2037 CHECK RESTRICTED/CONSTRAINED COMMANDS FOR EXECUTION
6.2.1	2040 ALLOW CUSTOMER TO OPERATE P/L REAL TIME
6.2.1.2	2041 INCLUDE RESTRICTED/CONSTRAINED COMMANDS IN REAL TIME OPS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
3.3.2P	CHECK R/C REAL TIME CMMDS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
6.1.3.1	2034 RESTRICTED/CONSTRAINED COMMAND INHIBITION, TRANSMISSION
6.1.6.2	2037 CHECK RESTRICTED/CONSTRAINED COMMANDS FOR EXECUTION
6.2.1	2040 ALLOW CUSTOMER TO OPERATE P/L REAL TIME
6.2.1.2	2041 INCLUDE RESTRICTED/CONSTRAINED COMMANDS IN REAL TIME OPS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
3.4	SEQUENCE OPS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.5.3.L	1069 SUPPORT P/L COMMAND & DATA OPS
COMM1309(90)	3018 INTEGRATED SPACE STATION SCHEDULING
SAAX0011(95)	3020 INTEGRATED SPACE STATION OPERATOR SCHEDULING
TDMX2020(52)	3021 COMMAND ENTRY

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
3.4.1	SEQUENCE P/L OPS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
6.3.1.1	2046 ACTIVATE STORED COMMAND SEQUENCES
6.3.2	2047 STORED PAYLOAD COMMAND ACTIVATED BY ANOTHER STORED COMMAND

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
3.4.1P	SEQUENCE P/L OPS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
6.3.1.1	2046 ACTIVATE STORED COMMAND SEQUENCES
6.3.2	2047 STORED PAYLOAD COMMAND ACTIVATED BY ANOTHER STORED COMMAND

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.0	OPERATE GN&C SYSTEM

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.1.10.2.B	1050 REDUNDANCY MGMT. & STATUS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.1	NAVIGATION

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.7.1.D	1091 PROVIDE NAV & GUIDANCE FOR SSPE TRAFFIC CTRL
C-4-2.2.7.1.G	1094 PROVIDE GN&C FOR SSPE ORBIT ADJUSTMENT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.1.1	SS STATE/ORBIT DET.

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
4.1.3	2024 PROVIDE ORBIT POSITION, TBD M ACCURACY
C-4-2.2.7.1.A	1088 ACCEPT SECOND SOURCE STATE VECTOR UPDATE
C-4-2.2.7.1.A	1087 ESTABLISH AND MAINTAIN SSPE STATE VECTOR
SAAX0201(74)	3001 DETERMINE SPACE STATION STATE/ORBIT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.1.1P	SS STATE/ORBIT DET.

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
4.1.3	2024 PROVIDE ORBIT POSITION, TBD M ACCURACY
C-4-2.2.7.1.A	1087 ESTABLISH AND MAINTAIN SSPE STATE VECTOR
C-4-2.2.7.1.A	1088 ACCEPT SECOND SOURCE STATE VECTOR UPDATE
SAAX0201(74)	3001 DETERMINE SPACE STATION STATE/ORBIT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.1.2	CONST STATE/ORBIT DET.

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.7.1.A	1088 ACCEPT SECOND SOURCE STATE VECTOR UPDATE
C-4-2.2.7.1.A	1087 ESTABLISH AND MAINTAIN SSPE STATE VECTOR
SAAX0009(52)	3002 DETERMINE CONSTELLATION STATE/ORBIT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.1.3	EPHEMERIDES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
SAAX006(13)	3003 DETERMINE EPHEMERIDES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.1.3P	EPHEMERIDES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
SAAX006(13)	3003 DETERMINE EPHEMERIDES

FUNCTION #
4.1.1.4

FUNCTION TITLE
ATTITUDE DET.

PARAGRAPH
NUMBER

4.1.4
TDMX2410(22)

REQ# DESCRIPTOR

2025 PROVIDE ATTITUDE, TBD DEG. ACCURACY
3004 DETERMINE SPACE STATION ATTITUDE

FUNCTION #
4.1.1.4P

FUNCTION TITLE
ATTITUDE DET.

PARAGRAPH
NUMBER

4.1.4
TDMX2410(22)

REQ# DESCRIPTOR

2025 PROVIDE ATTITUDE, TBD DEG. ACCURACY
3004 DETERMINE SPACE STATION ATTITUDE

FUNCTION #
4.1.1.5

FUNCTION TITLE
NAVIGATION STATE PROP.

PARAGRAPH
NUMBER

C-4-2.2.7.1.B
C-4-2.2.7.1.C
COMM1105(37)
TDMX2260(46)

REQ# DESCRIPTOR

1089 PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER
1090 PROVIDE STATE VECTOR AND TM TO SUPPORT CUSTOMER
3006 PROPAGATE CONSTELLATION STATE
3005 PROPOGATE SPACE STATION STATE

FUNCTION #
4.1.1.5P

FUNCTION TITLE
NAVIGATION STATE PROP.

PARAGRAPH
NUMBER

C-4-2.2.7.1.B
C-4-2.2.7.1.C
COMM1105(37)
TDMX2260(46)

REQ# DESCRIPTOR

1089 PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER
1090 PROVIDE STATE VECTOR AND TM TO SUPPORT CUSTOMER
3006 PROPAGATE CONSTELLATION STATE
3005 PROPOGATE SPACE STATION STATE

FUNCTION #
4.1.2

FUNCTION TITLE
GUIDANCE

PARAGRAPH
NUMBER

C-3-2.4.H
C-4-2.2.7.1.G
C-4-2.2.7.1.N

REQ# DESCRIPTOR

1025 COLLISION AVOIDANCE FROM ORBITAL DEBRIS
1094 PROVIDE GN&C FOR SSPE ORBIT ADJUSTMENT
1077 PROVIDE FOR SIMULTANEOUS INDIVIDUAL OPS OF CTRL SYS
EFFECTOR

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.2.1	REBOOST/REENTRY TARGETTING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.1.4.2	1048 DISPOSAL OF SSPE'S

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.2.1P	REBOOST/REENTRY TARGETTING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.1.4.2	1048 DISPOSAL OF SSPE'S

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.2.2	MANEUVER COORDINATION

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.7.1.D	1091 PROVIDE NAV & GUIDANCE FOR SSPE TRAFFIC CTRL
COMM1201(75)	3007 COORDINATE REBOOST

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.2.2P	MANEUVER COORDINATION

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.7.1.D	1091 PROVIDE NAV & GUIDANCE FOR SSPE TRAFFIC CTRL
COMM1201(75)	3007 COORDINATE REBOOST

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.2.4	REBOOST/MANEUVER

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.7.1.Q	1101 PROVIDE RCS INHIBITS
C-4-2.2.8	1105 ATTITUDE CTRL & VELOCITY ADJUSTMENT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.2.4P	REBOOST/MANEUVER

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.7.1.Q	1101 PROVIDE RCS INHIBITS
C-4-2.2.8	1105 ATTITUDE CTRL & VELOCITY ADJUSTMENT

FUNCTION #
4.1.2.5

FUNCTION TITLE
TETHER CTRL

PARAGRAPH
NUMBER

C-4-2.2.7.1.S

REQ# DESCRIPTOR

1103 PROVIDE CTRL DURING TETHERED OPS

FUNCTION #
4.1.2.6

FUNCTION TITLE
DEVELOP POINTING MOUNT CONTROL

PARAGRAPH
NUMBER

C-2-3.1.2

C-4-2.1.2.1

C-4-2.2.7.1.L

C-4-2.2.7.2b

REQ# DESCRIPTOR

1004 ARTICULATING MOUNTS FOR EXTERNAL PAYLOAD

1045 ARTICULATING MOUNTS FOR EXTERNAL PAYLOADS

1098 PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES

1172 CONTROL POINTING MOUNTS TO 0.1 DEG

FUNCTION #
4.1.2.6P

FUNCTION TITLE
DEVELOP POINTING MOUNT CONTROL

PARAGRAPH
NUMBER

C-2-3.1.2

C-4-2.1.2.1

C-4-2.2.7.1.L

C-4-2.2.7.2b

REQ# DESCRIPTOR

1004 ARTICULATING MOUNTS FOR EXTERNAL PAYLOAD

1045 ARTICULATING MOUNTS FOR EXTERNAL PAYLOADS

1098 PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES

1172 CONTROL POINTING MOUNTS TO 0.1 DEG

FUNCTION #
4.1.3

FUNCTION TITLE
ATTITUDE CONTROL

PARAGRAPH
NUMBER

C-4-2.2.7.1.G

C-4-2.2.7.1.N

C-4-2.2.7.1.O

REQ# DESCRIPTOR

1094 PROVIDE GN&C FOR SSPE ORBIT ADJUSTMENT

1077 PROVIDE FOR SIMULTANEOUS INDIVIDUAL OPS OF CTRL SYS
EFFECTOR

1076 PROVIDE FOR COOP OPS BETWEEN AC AND RMS

FUNCTION #
4.1.3.1

FUNCTION TITLE
CONTROL ATTITUDE

PARAGRAPH
NUMBER

C-4-2.2.7.1.H

C-4-2.2.7.1.L

C-4-2.2.7.2b

C-4-2.2.7.2b

REQ# DESCRIPTOR

1095 ESTABLISH & MAINTAIN SSPE RELATIVE ATTITUDE

1098 PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES

1174 LIMIT ANGULAR RATE TO 0.02 DEG/SEC

1171 CONTROL STATION ATTITUDE TO +/- DEG

FUNCTION #
4.1.3.1P

FUNCTION TITLE
CONTROL ATTITUDE

PARAGRAPH
NUMBER

C-4-2.2.7.1.H
C-4-2.2.7.1.L
C-4-2.2.7.2b
C-4-2.2.7.2b

REQ# DESCRIPTOR
1095 ESTABLISH & MAINTAIN SSPE RELATIVE ATTITUDE
1098 PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES
1174 LIMIT ANGULAR RATE TO 0.02 DEG/SEC
1171 CONTROL STATION ATTITUDE TO +/- DEG

FUNCTION #
4.1.3.2

FUNCTION TITLE
GENERATE ATTITUDE CMMDS

PARAGRAPH
NUMBER

TDMX2120(12)

REQ# DESCRIPTOR
3008 COORDINATE ATTITUDE MANEUVER

FUNCTION #
4.1.3.2P

FUNCTION TITLE
GENERATE ATTITUDE CMMDS

PARAGRAPH
NUMBER

TDMX2120(12)

REQ# DESCRIPTOR
3008 COORDINATE ATTITUDE MANEUVER

FUNCTION #
4.1.3.3

FUNCTION TITLE
CMG MOMENTUM MGT.

PARAGRAPH
NUMBER

C-4-2.2.7.1.P
C-4-2.2.8

REQ# DESCRIPTOR
1100 PROVIDE ACTIVE MOMENTUM MGMT
1105 ATTITUDE CTRL & VELOCITY ADJUSTMENT

FUNCTION #
4.1.3.3P

FUNCTION TITLE
CMG MOMENTUM MGT.

PARAGRAPH
NUMBER

C-4-2.2.7.1.P
C-4-2.2.8

REQ# DESCRIPTOR
1100 PROVIDE ACTIVE MOMENTUM MGMT
1105 ATTITUDE CTRL & VELOCITY ADJUSTMENT

FUNCTION #
4.1.4

FUNCTION TITLE
TRAFFIC CONTROL

PARAGRAPH
NUMBER

C-4-2.2.7.1.G
C-4-3.2.3

REQ# DESCRIPTOR
1094 PROVIDE GN&C FOR SSPE ORBIT ADJUSTMENT
1120 OMV OPS CTRL & SAFETY

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.4.1	COMPUTE/PROP CONST. REL STATE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.7.1.B	1089 PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER
C-4-2.2.7.1.C	1090 PROVIDE STATE VECTOR AND TM TO SUPPORT CUSTOMER
C-4-2.2.7.1.D	1091 PROVIDE NAV & GUIDANCE FOR SSPE TRAFFIC CTRL
C-4-2.2.7.1.F	1093 PROVIDE WARNING & COMMAND FOR UNSAFE SSPE TRAFFIC CONDITIONS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.4.2	MANAGE CONST MANEUVERS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.7.1.D	1091 PROVIDE NAV & GUIDANCE FOR SSPE TRAFFIC CTRL
C-4-2.2.7.1.R	1102 PERFORM COLLISION AVOIDANCE MANUVERS
C-4-2.2.7.2d	1175 POSITION COP TO +/- 100M ALT & PLANE
COMM1304(11)	3034 POWERED GUIDANCE
COMM1304(47)	3009 TARGET COFLIER MANEUVER

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.4.3	SCHED DEPLOY/RENDEZVOUS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
COMM1304(11)	3034 POWERED GUIDANCE
SAAX0012(35)	3010 SCHEDULE RENDEZVOUS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.4.4	MANAGE RENDEZVOUS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-2.4.E	1022 PROX OPS MGMT. CAPABILITY
C-4-2.2.7.1.E	1092 APPR/DEP TRAJ FOR SSPE'S
C-4-2.2.7.1.M	1099 SUPPORT BERTHING, DOCKING, & SEPERATION OPS
C-4-2.2.7.2e	1176 POSITION ALL TRAFFIC WITHIN 1M DURING PROX OPS
C-4-3.3.3	1122 OTV OPERATIONS CONTROL & SAFETY
C-4-3.5.4	1124 SS CTRL & SAFTEY OF FF, SATELLITES DURING PROX OPS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.1.4.5	TARGET COLLISION AVOIDANCE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-2.4.H	1025 COLLISION AVOIDANCE FROM ORBITAL DEBRIS
C-4-2.2.7.1.F	1093 PROVIDE WARNING & COMMAND FOR UNSAFE SSPE TRAFFIC CONDITIONS
C-4-2.2.7.1.R	1102 PERFORM COLLISION AVOIDANCE MANUVERS

FUNCTION # : 4.1.4.5 (Continued)

FUNCTION #
4.1.5

FUNCTION TITLE
TRACKING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-2.4.H	1025 COLLISION AVOIDANCE FROM ORBITAL DEBRIS
C-4-2.2.6.2.C	1079 C & T BETWEEN SS AND INTEROPERATING ELEMENTS
C-4-2.2.6.2.E	1080 PROVIDE ACQ & TRACKING FOR DETACHED VEHICLES

FUNCTION #
4.1.6

FUNCTION TITLE
TIME/FREQUENCY MANAGEMENT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
4.1.2	2023 PROVIDE TIME REFERENCE, 1 mSEC ACCURACY
C-4-2.2.5.3.F	1064 TIME/FREQUENCY MGMT, TIME FROM GPS

FUNCTION #
4.1.6.2

FUNCTION TITLE
TIME UPDATE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
COMM1014(30)	3013 UPDATE TIME

FUNCTION #
4.1.6.2P

FUNCTION TITLE
TIME UPDATE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
COMM1014(30)	3013 UPDATE TIME

FUNCTION #
4.2

FUNCTION TITLE
OP NON-GN&C CORE SYSTEMS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-2-3.1.1	1002 RESOURCE DISTRIBUTION AND CTRL
C-2-3.1.1	1001 HABITABLE SS MODULE SHALL PROVIDE COM & CTRL & DATA HANDLING
C-4-2.1.9.C	1049 MONITORING AND FAULT ISOLATION OF ORU'S

FUNCTION #
4.2.1.1P

FUNCTION TITLE
EVALUATE ARRAY PERFORMANCE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.3.D	1056 AUTO POWER SYSTEM LOAD CTRL

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.1.2	CONFIGURE PWR DIST.

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.3.D	1056 AUTO POWER SYSTEM LOAD CTRL
C-4-2.2.3.F	1057 RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES
C-4-3.6.B	1125 PAYLOAD FACILITIES MGMT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.1.2P	CONFIGURE PWR DIST.

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.3.D	1056 AUTO POWER SYSTEM LOAD CTRL
C-4-2.2.3.F	1057 RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES
C-4-3.6.B	1125 PAYLOAD FACILITIES MGMT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.1.3	POWER SOURCE MGMT.

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.3.D	1056 AUTO POWER SYSTEM LOAD CTRL
C-4-2.2.3.F	1057 RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.1.3P	POWER SOURCE MGMT.

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.3.D	1056 AUTO POWER SYSTEM LOAD CTRL
C-4-2.2.3.F	1057 RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.1.5P	PROJECT ENERGY AVAILABLE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.3.D	1056 AUTO POWER SYSTEM LOAD CTRL

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.2.1	MANAGE THERMAL LOAD

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.4.1.B	1058 MANAGE THERMAL LOAD
C-4-3.6.B	1125 PAYLOAD FACILITIES MGMT
SAAX0307(28)	3011 CONTROL TEMPERATURE

FUNCTION # : 4.2.2.1 (Continued)

SAAXO403(28) 3012 MANAGE THERMAL LOAD

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.2.1P	MANAGE THERMAL LOAD

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-2.2.4.1.B	1058	MANAGE THERMAL LOAD
C-4-3.6.B	1125	PAYLOAD FACILITIES MGMT
SAAXO307(28)	3011	CONTROL TEMPERATURE
SAAXO403(28)	3012	MANAGE THERMAL LOAD

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.2.2	THERMAL CTRL DEVICE MGMT

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-2.1.9.C	1049	MONITORING AND FAULT ISOLATION OF ORU'S

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.2.2P	THERMAL DEVICE MANAGEMENT

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-2.1.9.C	1049	MONITORING AND FAULT ISOLATION OF ORU'S

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.2.3	PROJECT THERMAL CAPACITY AVAIA

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-3.6.B	1125	PAYLOAD FACILITIES MGMT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.2.3P	PROJECT THERMAL LOAD CAPACITY

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-3.6.B	1125	PAYLOAD FACILITIES MGMT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.3	STRUCT & MECH SUPT

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-3.2.3	1120	OMV OPS CTRL & SAFETY
C-4-3.5.4	1124	SS CTRL & SAFETY OF FF, SATELLITES DURING PROX OPS

FUNCTION # : 4.2.3 (Continued)

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.3.2	RMS OPERATIONS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-2.1.I	1014 SSPE BERTHING & SERVICING
C-4-2.2.2.5.e	1129 PROVIDE RMS CTL, MODES, DATA, COMM, & CREW IF
C-4-2.2.7.1.M	1099 SUPPORT BERTHING, DOCKING, & SEPERATION OPS
C-4-2.2.7.1.0	1076 PROVIDE FOR COOP OPS BETWEEN AC AND RMS
C-4-3.5.1b	1182 BERTH, HOLD, POSITION FREE FLIERS
TDMX2060(46)	3027 RMS OPERATIONS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.3.3	MANAGE DOCKING/BERTHING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
TDMX2560(37)	3028 DOCKING OPERATIONS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.3.3P	MANAGE DOCKING/BERTHING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
TDMX2560(37)	3028 DOCKING OPERATIONS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.4.1	CONTROL ATM PRESS & COMP

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-2.2.A	1015 INDEPENDENT EMERGENCY DETECTION & CTRL
C-4-2.1.11.2.A1	1052 INDEPENDENT EMERGENCY DETECT & CTRL
C-4-2.1.11.2.E	1128 DETECT, MONITOR, CONTROL HAZARDOUS FLUIDS
C-4-2.1.3.3	1047 INTERNAL/EXTERNAL CONTAMINATION MONITOR
C-4-2.2.9.1.A	1106 MONITOR AND REGULATE MODULE ATMOS. GASES
C-4-2.2.9.2.B.1	1197 MIN & MAX LEVELS OF TEMP & HUMIDITY PER TABLE 6-4-IX
C422.10.1J.1.A	1111 DETECT & CTRL OF INTERNAL ATMOS. CONTAM
C422.10.1J.1.C	1112 DETECTION, CORRECTION, & WARNING FOR SS ATMOS CONTAMINATION
SAAX0302(24)	3030 CONTROL PRESSURIZED MODULE ATM COMP

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.4.2	CONTROL TEMP, HUMIDITY

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.9.1.B	1108 MODULE TEMP & HUMIDITY CTRL
C-4-2.2.9.2.B.1	1197 MIN & MAX LEVELS OF TEMP & HUMIDITY PER TABLE 6-4-IX
C-4-2.2.9.2b2	1200 CREW MAY SET MODULE TEMP & HUMIDITY

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.4.3	POTABLE WATER MANAGEMENT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-2.2.A	1015 INDEPENDENT EMERGENCY DETECTION & CTRL
C-4-2.1.11.2.A1	1052 INDEPENDENT EMERGENCY DETECT & CTRL
C-4-2.2.9.1.D	1109 WATER QUALITY MGMT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.4.4	GREY WATER MANAGMENT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.9.1.D	1109 WATER QUALITY MGMT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.4.5	FIRE DETECTION & CTRL

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-2.2.A	1015 INDEPENDENT EMERGENCY DETECTION & CTRL
C-4-2.1.11.2.A1	1052 INDEPENDENT EMERGENCY DETECT & CTRL
C-4-2.1.11.2.L	1130 DETECT AND EXTINGUISH FIRES
C-4-2.2.9.1.A	1107 PROVIDE FIRE DETECTION & SUPPRESSION
C-4-2.2.9.1.A	1106 MONITOR AND REGULATE MODULE ATMOS. GASES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.5	COMMUNICATION

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
1.1.9	2005 CUSTOMER OPTION FOR REAL TIME P/L INTERACTION
1.2.2	2110 PROVIDE END-TO-END BIT-ERROR RATES PER PHASE B RFP
1.2.4	2112 PROVIDE CUST. DATA STORAGE PER PHASE B RFP
6.2.1	2040 ALLOW CUSTOMER TO OPERATE P/L REAL TIME
8.5.1	2085 VERIFY END-TO-END CUST DATA THROUGHPUT
C-3-2.1f	1202 COORD PLAT., SS, & ORBITER FUNCTIONS DURING NSTS SERVICE
C-3-2.4.D	1021 NEAR CONTINUOUS GND/SS VOICE, VIDEO, & COMM, COM
C-3-2.4.E	1022 PROX OPS MGMT. CAPABILITY
C-3-2.4.F	1023 COOP OPS WITH PLATFORM/PAYLOAD
C-4-2.2.5.3.E	1063 RATE BUFFERING FOR CUST. DELIVERED DATA

FUNCTION # : 4.2.5 (Continued)

C-4-2.2.5.3.J	1067	INTERFACE WITH P/F,ETC TO SUPPORT REMOTE & PROX OPS DISPLAYS
C-4-2.2.5.3.O	1071	ENHANCEMENT OF DATA & MISSION RELIABILITY
C-4-2.2.5.3n	1166	ACCEPT MERGE, STORE 225MBPS FROM PLATFORM W/ GWTH MARGIN
C-4-2.2.6.2.A	1073	SS FACILITY WIRELESS VOICE COMMUNICATION
C-4-2.2.6.2.A	1072	MULTIPLE DUPLEX SS/GROUND VOICE CHANNELS
C-4-2.2.6.2.B	1074	VIDEO COMMUNICATION, STORAGE, RETRIEVAL
C-4-2.2.6.2.C	1079	C & T BETWEEN SS AND INTEROPERATING ELEMENTS
C-4-2.2.6.2.F	1081	ALLOW INDEPENDENT CUSTOMER COMMUNICATION
C-4-2.2.6.2.G	1082	CONTINGENCY COMMUNICATION LINK SSPE TO GROUND
C-4-2.2.6.2.H	1083	CUSTOMER DATA COMMUNICATION
C-4-2.2.6.2.I	1084	SECURE COMMUNICATION LINKS: COMMAND AUTHENTICATION
C-4-2.2.6.2.J	1085	PRIVATE SS/GROUND CRW COMMUNICATION
C-4-2.2.6.2.K	1086	RECEPTION & PROCESSING GPS SIGNALS
C-4-2.2.6.2g	1168	PROVIDE FOR TRANSMISSION AT MAX TDRS KSA, SSA RATES
C-4-3.2.3	1120	OMV OPS CTRL & SAFETY
C-4-3.3.3	1122	OTV OPERATIONS CONTROL & SAFETY
C-4-3.5.4	1124	SS CTRL & SAFETY OF FF, SATELLITES DURING PROX OPS

FUNCTION #
4.2.5.1FUNCTION TITLE
COMMUNICATION NETWORK CTRLPARAGRAPH
NUMBER

REQ# DESCRIPTOR

0.3	2001	COMMUNICATE PRIMARILY THROUGH TDRSS
0.3	2002	COP TRANSMIT/RECEIVE THROUGH TDRSS
1.2.1	2109	SUPPORT PEAK AND AVER. DATA RATES FROM PHASE B RFP
1.2.3	2111	SUPP. AGGREGATE END-TO-END RATES THROUGHPUT PER PHASE B RFP
2.2.3.5	2125	PACKET REQ'TS MUST NOT PRECLUDE TDM
5.2.10	2020	SUPPORT TELECONFERENCING WITH SPACE NODE
5.2.3	2031	SUPPORT VIDEO RECORD/PLAYBACK BETWEEN SSP ELEMENTS
5.4.2	2162	PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE
6.1.1	2033	SUPPORT CUSTOMER PAYLOAD COMMAND
C-3-2.6.A	1030	INTRA & EXTRA STATION PERSON TO PERSON COMMUNICATION

FUNCTION #
4.2.5.1PFUNCTION TITLE
COMMUNICATION NETWORK CTRLPARAGRAPH
NUMBER

REQ# DESCRIPTOR

0.3	2002	COP TRANSMIT/RECEIVE THROUGH TDRSS
0.3	2001	COMMUNICATE PRIMARILY THROUGH TDRSS
1.2.1	2109	SUPPORT PEAK AND AVER. DATA RATES FROM PHASE B RFP
1.2.3	2111	SUPP. AGGREGATE END-TO-END RATES THROUGHPUT PER PHASE B RFP
2.2.3.5	2125	PACKET REQ'TS MUST NOT PRECLUDE TDM
5.4.2	2162	PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE
6.1.1	2033	SUPPORT CUSTOMER PAYLOAD COMMAND

FUNCTION # : 4.2.5.1P (Continued)

FUNCTION #	FUNCTION TITLE
4.2.5.2	COMMUNICATION EQUIP CTRL
PARAGRAPH NUMBER	REQ# DESCRIPTOR
1.1.9	2005 CUSTOMER OPTION FOR REAL TIME P/L INTERACTION
2.2.3.5	2125 PACKET REQ'TS MUST NOT PRECLUDE TDM
5.2.1	2150 SUPPORT VIDEO DISTRIBUTION AMONG ELEMENTS
5.2.10	2020 SUPPORT TELECONFERENCING WITH SPACE NODE
5.2.2	2151 SUPPORT VIDEO DISTRIBUTION TO CUSTOMER
5.2.4	2152 SUPPORT VIDEO COMMUNICATION PRIVACY
5.2.5	2153 SUPPORT DIST OF NTSC VIDEO SIGNALS
5.3.1	2157 SUPPORT AUDIO DIST. AMONG ELEMENTS
5.3.2	2158 SUPPORT AUDIO DIST. TO CUSTOMERS
5.3.3	2032 SUPP AUDIO RECORD/PLAYBACK BETWEEN SSP ELEMENTS
5.3.4	2159 SUPPORT AUDIO COMMUNICATION PRIVACY
5.3.5	2160 SUPPORT TELECONFERENCING WITH SPACE NODE
5.4.1	2161 PROVIDE DIGITAL DATA COMM AMONG ELEMENTS
5.4.2	2162 PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE
6.1.1	2033 SUPPORT CUSTOMER PAYLOAD COMMAND
C-3-2.6.A	1030 INTRA & EXTRA STATION PERSON TO PERSON COMMUNICATION

FUNCTION #	FUNCTION TITLE
4.2.5.2P	COMMUNICATION EQUIP CTRL
PARAGRAPH NUMBER	REQ# DESCRIPTOR
1.1.9	2005 CUSTOMER OPTION FOR REAL TIME P/L INTERACTION
2.2.3.5	2125 PACKET REQ'TS MUST NOT PRECLUDE TDM
5.2.1	2150 SUPPORT VIDEO DISTRIBUTION AMONG ELEMENTS
5.2.2	2151 SUPPORT VIDEO DISTRIBUTION TO CUSTOMER
5.2.5	2153 SUPPORT DIST OF NTSC VIDEO SIGNALS
5.4.1	2161 PROVIDE DIGITAL DATA COMM AMONG ELEMENTS
5.4.2	2162 PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE
6.1.1	2033 SUPPORT CUSTOMER PAYLOAD COMMAND

FUNCTION #	FUNCTION TITLE
4.2.5.3	COMM STATUS MONITORING
PARAGRAPH NUMBER	REQ# DESCRIPTOR
2.2.3.3	2123 CUST PROVIDES IMPROVED BIT-ERROR RATES
7.3.3	2064 MONITOR, PROTECT DATA SYSTEM INTERFACES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.5.3P	COMM STATUS MONITORING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
2.2.3.3	2123	CUST PROVIDES IMPROVED BIT-ERROR RATES
7.3.3	2064	MONITOR, PROTECT DATA SYSTEM INTERFACES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.5.4	COMM FAILURE DETECTION/RECOV

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
2.2.3.3	2123	CUST PROVIDES IMPROVED BIT-ERROR RATES
7.3.2	2063	DIFFERENTIATE P/L, SSIS FAULTS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.5.4P	COMM FAILURE DETECTION/RECOV

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
2.2.3.3	2123	CUST PROVIDES IMPROVED BIT-ERROR RATES
7.3.2	2063	DIFFERENTIATE P/L, SSIS FAULTS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.5.5	COMM COMMAND PROCESSING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
1.1.9	2005	CUSTOMER OPTION FOR REAL TIME P/L INTERACTION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.5.5P	COMM COMMAND PROCESSING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
1.1.9	2005	CUSTOMER OPTION FOR REAL TIME P/L INTERACTION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.5.6	COMM INTERFACE CONTROL

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
1.1.9	2005	CUSTOMER OPTION FOR REAL TIME P/L INTERACTION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.2.5.6P	COMM INTERFACE CONTROL

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
1.1.9	2005 CUSTOMER OPTION FOR REAL TIME P/L INTERACTION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3	FLIGHT CREW SUPPORT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-2.6.B	1031 CREW HEALTH & MAINTENANCE & REC FACILITIES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.1	HEALTH MAINTENANCE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C4-2.2.10.2.G	1114 MEDICAL DATA BASE SYSTEM
TDMX2530(8)	3025 HEALTH RECORD MAINTENANCE

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.1.1	CREW PHYSIOLOGICAL MONITOR

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.10.2.G5	1177 MONITOR CARDIAVASCULAR FUNCTIONS
C-4-2.2.5.2.A	1059 STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS
C-4-3.10.1c	1186 MONITOR CREW EVA PHYSIOLOGICAL DATA ONCE PER MIN
SAAX0303(8)	3023 CREW PHYSIOLOGICAL MONITORING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.1.2	MEDICAL DIAG. SUPPORT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.10g9	1191 INCLUDE MEDICAL CHECKLIST IN MEDICAL DATA BASE
SAAX0301(5)	3024 MEDICAL DIAGNOSTICS SUPPORT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.1.3	TREATMENT SUPPORT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C4-2.2.10.2.G.2	1115 DOWNLINK OF DIAGNOSTIC IMAGES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.1.4	NUTRITION ANALYSIS

<u>PARAGRAPH</u>	
<u>NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.10.2g7	1192 PERFORM METABOLIC ANALYSIS
C-4-2.2.11.2A6	1179 CONTROL AIRLOCK PRESS FROM SS, AIRLOCK & OUTSIDE
SAAX0301(8)	3026 NUTRITION ANALYSIS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.1.5	EXERCISE PLANNER

<u>PARAGRAPH</u>	
<u>NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.10.2g13	1193 USE EXERCISE AS A PHYSIOLOGICAL COUNTERMEASURE

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.1.6	HEALTH DATA PROCESSING

<u>PARAGRAPH</u>	
<u>NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.10.2g5	1190 MEASURE CARDIAC OUTPUT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.2.1	CAUTION & WARNING

<u>PARAGRAPH</u>	
<u>NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
5.4.5	2165 SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA
C-4-2.1.10.2.B	1050 REDUNDANCY MGMT. & STATUS
C-4-2.1.11.1	1051 HAZARD CTRL BY WARNING DEV, SPECIAL PROC, EMERGENCY DEVICES
C-4-2.1.11.2.C	1053 CRITICAL SYSTEM FAILURE NOTIFICATION
C-4-2.1.11.2.E	1128 DETECT, MONITOR, CONTROL HAZARDOUS FLUIDS
C-4-2.2.11.1e	1178 SUPPORT EMU DECONTAMINATION
C-4-2.2.5.3C4	1162 ANNUN. OF CATASTROPHIC FAILURES VIA MPAC
C-4-2.2.7.1.F	1093 PROVIDE WARNING & COMMAND FOR UNSAFE SSPE TRAFFIC CONDITIONS
C-4-3.10.1c	1189 NOTIFY CREW OF EMU WARNINGS
C422.10.1J.1.C	1112 DETECTION, CORRECTION, & WARNING FOR SS ATMOS COMTAMINATION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.2.1P	CAUTION & WARNING

<u>PARAGRAPH</u>	
<u>NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
5.4.5	2165 SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA
C-4-2.1.10.2.B	1050 REDUNDANCY MGMT. & STATUS
C-4-2.1.11.1	1051 HAZARD CTRL BY WARNING DEV, SPECIAL PROC, EMERGENCY DEVICES
C-4-2.1.11.2.C	1053 CRITICAL SYSTEM FAILURE NOTIFICATION

FUNCTION # : 4.3.2.1P (Continued)

C-4-2.1.11.2.E 1128 DETECT, MONITOR, CONTROL HAZARDOUS FLUIDS
 C-4-2.2.11.1e 1178 SUPPORT EMU DECONTAMINATION
 C-4-2.2.7.1.F 1093 PROVIDE WARNING & COMMAND FOR UNSAFE SSPE TRAFFIC
 CONDITIONS

FUNCTION #
4.3.2.2

FUNCTION TITLE
ABNORMAL & EMERGENCY PROCED

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
7.1.1	2049 CRITICAL/CONTINGENCY PROCEDURE SUPPORT
C-3-2.2.A	1015 INDEPENDENT EMERGENCY DETECTION & CTRL
C-3-3.3b	1188 MANUAL OVERRIDES, INHIBITS OF AUTOMATIC FUNCTIONS
C-4-2.1.11.2.A1	1052 INDEPENDENT EMERGENCY DETECT & CTRL
C-4-2.1.11.4.a	1153 CREW ABLE TO OVERRIDE AUTOMATIC SAFING
C-4-2.2.7.1.R	1102 PERFORM COLLISION AVOIDANCE MANUVERS
C-4-3.2.3	1120 OMV OPS CTRL & SAFETY
C-4-3.3.3	1122 OTV OPERATIONS CONTROL & SAFETY
C-4-3.5.4	1124 SS CTRL & SAFETY OF FF, SATELLITES DURING PROX OPS

FUNCTION #
4.3.2.2P

FUNCTION TITLE
ABNORMAL & EMERGENCY PROCED

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
7.1.1	2049 CRITICAL/CONTINGENCY PROCEDURE SUPPORT
C-3-2.2.A	1015 INDEPENDENT EMERGENCY DETECTION & CTRL
C-3-3.3b	1188 MANUAL OVERRIDES, INHIBITS OF AUTOMATIC FUNCTIONS
C-4-2.1.11.2.A1	1052 INDEPENDENT EMERGENCY DETECT & CTRL
C-4-2.1.11.4.a	1153 CREW ABLE TO OVERRIDE AUTOMATIC SAFING
C-4-2.2.7.1.R	1102 PERFORM COLLISION AVOIDANCE MANUVERS
C-4-3.5.4	1124 SS CTRL & SAFETY OF FF, SATELLITES DURING PROX OPS

FUNCTION #
4.3.2.3

FUNCTION TITLE
AUTOMATIC CTRL PROCESSING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.1.10.1	1147 SAFETY CRITICAL SYSTEMS FO/FS/RESTORABLE

FUNCTION #
4.3.2.3P

FUNCTION TITLE
AUTOMATIC CTRL PROCESSING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.1.10.1	1147 SAFETY CRITICAL SYSTEMS FO/FS/RESTORABLE

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.2.4	SAFETY DEVICE MGMT

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
5.4.5	2165	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA
C-3-2.2c	1187	FAIL OP/FAIL SAFE/RESTORE-SAFETY, MISSION CRITICAL SYSTEMS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.2.4P	SAFETY DEVICE MGMT

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
5.4.5	2165	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA
C-3-2.2c	1187	FAIL OP/FAIL SAFE/RESTORE-SAFETY, MISSION CRITICAL SYSTEMS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.3.1	RECREATION SERVICES

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-2.2.10.2f	1203	AUDIO/VIDEO ENTERTAINMENT REQ'D IN WARDROOM
C-4-2.2.10.2h	1204	AUDIO/VIDEO ENTERTAINMENT REQ'D IN EXERCISE AREA
C-4-2.2.6.2.B.1	1075	COMMERCIAL VIDEO FOR CREW REC. & TRAINING
C4.2.2.10.2.D.2	1113	A/V ENTERTAINMENT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.4.1	EMU CONTAM. CONTROL

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-2.2.11.1e	1178	SUPPORT EMU DECONTAMINATION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.4.2	EMU MONITOR & MAINTENANCE

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-2.2.9.1.F	1110	SERVICE & C/O OF MMU'S & EMU'S
C-4-3.10	1126	EMU, MMU AUTOMATIC SERVICING
C-4-3.10.1a	1185	EMU SUIT CHECKOUT
C4-2.2.11.2.B.2	1116	AUTOMATIC SERVICING OF MMU & EMU EQUIP

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.4.3	MMU MONITOR & MAINTENANCE

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-2.2.9.1.F	1110	SERVICE & C/O OF MMU'S & EMU'S

FUNCTION # : 4.3.4.3 (Continued)

C-4-3.10 1126 EMU, MMU AUTOMATIC SERVICING
 C4-2.2.11.2.B.2 1116 AUTOMATIC SERVICING OF MMU & EMU EQUIP

FUNCTION #
 4.3.4.4 FUNCTION TITLE
 SAFETY INTERLOCK MON. & CTRL

PARAGRAPH
NUMBER REQ# DESCRIPTOR
 C-3-2.4.F 1023 COOP OPS WITH PLATFORM/PAYLOAD
 C-4-2.2.7.1.Q 1101 PROVIDE RCS INHIBITS

FUNCTION #
 4.3.4.5 FUNCTION TITLE
 EVA REAL TIME MON & CTRL

PARAGRAPH
NUMBER REQ# DESCRIPTOR
 C-4-2.2.6.2.C 1079 C & T BETWEEN SS AND INTEROPERATING ELEMENTS
 C-4-2.2.6.2b2 1194 ONE-WAY TV MONITORING OF EVA ACTIVITIES
 C-4-3.10.1C 1199 ONCE PER MIN DATA TRANSMISSION FROM EMU

FUNCTION #
 4.3.4.6 FUNCTION TITLE
 EVA VISUAL INFORMATION

PARAGRAPH
NUMBER REQ# DESCRIPTOR
 C-4-3.10.1.b 1184 IMAGE DISPLAYS CONTROLLED BY EVA CREWMEN
 C-4-3.10.16 1198 6-IMAGE/MIN DISPLAY W/AUDIO EXPLANATION FOR EVA

FUNCTION #
 4.3.4.7 FUNCTION TITLE
 AIRLOCK ATM. CONTROL

PARAGRAPH
NUMBER REQ# DESCRIPTOR
 C-4-2.2.11.1e 1178 SUPPORT EMU DECONTAMINATION
 C-4-2.2.11.2a6 1195 CTRL AIRLOCK PRES/DEPRES RATE TO 0.1 PSI/SEC NORM, 1
 PSI/SEC
 C-4-2.2.11.2a7 1196 HYPERTARIC AIRLOCK CTL, PRES UP TO 5 ATM, 0.2 FROM 3
 PSI MIN

FUNCTION #
 4.3.4.8 FUNCTION TITLE
 AIRLOCK TEMP & HUMIDITY CTRL

PARAGRAPH
NUMBER REQ# DESCRIPTOR
 C-4-2.2.9.2.B.1 1197 MIN & MAX LEVELS OF TEMP & HUMIDITY PER TABLE 6-4-IX
 C-4-2.2.9.2b2 1200 CREW MAY SET MODULE TEMP & HUMIDITY

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.5	OPS & PROCEDURE SUPT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
4.2.1.1	2140 PROVIDE CREW ACCESS TO TMIS & SSDS DATA BASE
7.1.1	2048 MAINTENANCE AND TROUBLESHOOTING PROCEDURE SUPPORT
C-3-2.5.B	1027 PROVIDE ON-BOARD TRAINING
C-3-3.2.D	1037 IVA/EVA OPERATIONS DOCUMENTATION DATA SUPPORT
C-3-3.2.I	1040 OPS & MAINTENANCE DOCUMENTATION SUPPORT
C-4-2.1.11.1	1051 HAZARD CTRL BY WARNING DEV, SPECIAL PROC, EMERGENCY DEVICES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.5.1	MAINTENANCE & REPAIR PROCEDUR

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.1.2.4	1135 FACILITATE SCHED/UNSCHED SERVICING OF SSPE'S
C-4-2.1.9.C	1049 MONITORING AND FAULT ISOLATION OF ORU'S
C-4-2.2.5.3.H	1065 SUPPORT SSPE C/O, ANALYSIS, OPS, & MAINTENANCE

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.5.2	OPERATIONS PROCEDURES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
4.2.1	2026 ACCESS TO SS PROG ENG OPER'S, ADMIN AND DESCRIPTIVE INFORM
C-3-3.2.G	1038 MAINTENANCE INFORMATION RECORD & RETRIEVE
C-4-2.2.5.3.H	1065 SUPPORT SSPE C/O, ANALYSIS, OPS, & MAINTENANCE

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.5.3	GENERAL DATA PROC. SUPPORT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.5.2.A	1059 STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.3.5.4	GENERAL PROGRAMMING LANGUAGE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-3.2.K	1041 CREW/GROUND MODS TO S/W IN OP. SYSTEM
C-4-2.2.5.2.A	1059 STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS
C-4-2.2.5.2b	1159 SUPPORT GEN PURPOSE PROGRAMMING LANGUAGE

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4	SPECIAL CUST AVIONICS SERVICES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
7.4.2	2068 PROVIDE SS OPERATIONS REPORT ACCESS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.1	GN&C SERVICES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.7.1.B	1089 PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.1.1	GND TRACK DETERMINATION

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
4.1.3	2024 PROVIDE ORBIT POSITION, TBD M ACCURACY
COMM1014(14)	3031 GROUND TRACK DETERMINATION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.1.1P	GND TRACK DETERMINATION

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
4.1.3	2024 PROVIDE ORBIT POSITION, TBD M ACCURACY
COMM1014(14)	3031 GROUND TRACK DETERMINATION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.1.2	MAGNETIC FIELD DETERMINATION

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
SAAX0207(4)	3033 MAGNETIC FIELD DETERMINATION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.1.2P	MAGNETIC FIELD DETERMINATION

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
SAAX0207(4)	3033 MAGNETIC FIELD DETERMINATION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.1.4	RELATIVE ALIGNMENT DET.

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
4.1.4	2025 PROVIDE ATTITUDE, TBD DEG. ACCURACY

FUNCTION # : 4.4.1.4 (Continued)

C-4-2.1.2.1	1045 ARTICULATING MOUNTS FOR EXTERNAL PAYLOADS
C-4-2.2.7.1.L	1098 PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES
C-4-2.2.7.1.T	1104 PROVIDE NAV DATA TO PAYLOAD
C-4-2.2.7.2b	1173 DETERMINE POINTING MOUNT ATTITUDE TO 0.01 DEG

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.1.4P	RELATIVE ALIGNMENT DET.

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
4.1.4	2025	PROVIDE ATTITUDE, TBD DEG. ACCURACY
C-4-2.1.2.1	1045	ARTICULATING MOUNTS FOR EXTERNAL PAYLOADS
C-4-2.2.7.1.L	1098	PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES
C-4-2.2.7.1.T	1104	PROVIDE NAV DATA TO PAYLOAD
C-4-2.2.7.2b	1173	DETERMINE POINTING MOUNT ATTITUDE TO 0.01 DEG

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.2	CONTAMINATION CONTROL

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
C-4-2.1.3.3	1047	INTERNAL/EXTERNAL CONTAMINATION MONITOR

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.2.1	VENTING EFFECTS DET

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
SAAX0004(12)	3032	VENTING EFFECTS DETERMINATION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.2.2	ENVIRONMENTAL MONITOR

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
SAAX0110(35)	3055	ENVIRONMENTAL MONITOR

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.2P	ENVIRONMENTAL MONITOR

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
SAAX0110(35)	3055	ENVIRONMENTAL MONITOR

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.3	TRACKING SERVICES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.6.2.C	1079 C & T BETWEEN SS AND INTEROPERATING ELEMENTS
C-4-2.2.6.2.E	1080 PROVIDE ACQ & TRACKING FOR DETACHED VEHICLES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.4.3.1	RELATIVE RANGE & RATE

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
TDMX2220(54)	3054 RELATIVE RANGE, RATE, ATTITUDE DATA

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.5	MONITOR & STATUS SYSTEM

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
4.2.1.1	2140 PROVIDE CREW ACCESS TO TMIS & SSDS DATA BASE
7.4.2	2068 PROVIDE SS OPERATIONS REPORT ACCESS
C-4-2.1.10.2.B	1050 REDUNDANCY MGMT. & STATUS
C-4-2.2.5.3C1	1161 SUBSYS VISIBILITY VIA MPAC WITH MULTIPLE DISPLAYS
C-4-3.6.B	1125 PAYLOAD FACILITIES MGMT
SAAX0207(3)	3019 SYSTEM/SUBSYSTEM CONFIGURATION STATUSING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.5.1	MONITOR CORE SYSTEM STATUS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
7.1.1	2099 CONSUMABLES MANAGEMENT
7.3.2	2063 DIFFERENTIATE P/L, SSIS FAULTS
8.5.1	2184 MAINTAIN STATUS OF END-TO-END COMM. SYSTEM
C-4-2.1.11.2.A1	1052 INDEPENDENT EMERGENCY DETECT & CTRL
C-4-2.1.9.C	1049 MONITORING AND FAULT ISOLATION OF ORU'S
C-4-2.2.12.2.H	1118 FLUID MONITOR & CTRL
C-4-2.2.3.e	1155 PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS
C-4-2.2.7.1.I	1096 PROVIDE PROPELLENT USAGE DATA
C4-2.2.11.2.B.2	1117 MMU, & EMU SERVICE/PERFORMANCE TREND DATA ANALYSIS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.5.1P	MONITOR CORE SYSTEM STATUS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
7.1.1	2099 CONSUMABLES MANAGEMENT
7.3.2	2063 DIFFERENTIATE P/L, SSIS FAULTS
8.5.1	2184 MAINTAIN STATUS OF END-TO-END COMM. SYSTEM
C-4-2.1.11.2.A1	1052 INDEPENDENT EMERGENCY DETECT & CTRL
C-4-2.1.9.C	1049 MONITORING AND FAULT ISOLATION OF ORU'S

FUNCTION # : 4.5.1P (Continued)

C-4-2.2.12.2.H 1118 FLUID MONITOR & CTRL
 C-4-2.2.3.e 1155 PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS
 C-4-2.2.7.1.I 1096 PROVIDE PROPELLENT USAGE DATA
 C4-2.2.11.2.B.2 1117 MMU, & EMU SERVICE/PERFORMANCE TREND DATA ANALYSIS

FUNCTION # FUNCTION TITLE
 4.5.2 MONITOR CUSTOMER SYSTEM STATUS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
7.1.1	2099 CONSUMABLES MANAGEMENT
7.3.2	2063 DIFFERENTIATE P/L, SSIS FAULTS
7.3.3	2064 MONITOR, PROTECT DATA SYSTEM INTERFACES
7.3.4	2065 MEASURE, CONTROL RESOURCES AVAILABLE
C-4-2.2.12.2.H	1118 FLUID MONITOR & CTRL
C-4-2.2.3.e	1155 PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS
C-4-2.2.5.2.A	1059 STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS
C-4-2.2.5.3.K	1068 SUBSYSTEM MONITOR & CTRL BY CREW, GROUND
COMM1110(38)	3035 SPACE STATION CUSTOMER SYSTEM STATUS
COMM1312(20)	3036 GROUND CUSTOMER SYSTEM STATUS
SAAX0008(61)	3022 FLUIDS STATUS DATA
TDMX2150(51)	3056 VOLTAGE/CURRENT MONITOR

FUNCTION # FUNCTION TITLE
 4.5.2P MONITOR CUSTOMER SYSTEM STATUS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
7.1.1	2099 CONSUMABLES MANAGEMENT
7.3.2	2063 DIFFERENTIATE P/L, SSIS FAULTS
7.3.3	2064 MONITOR, PROTECT DATA SYSTEM INTERFACES
7.3.4	2065 MEASURE, CONTROL RESOURCES AVAILABLE
C-4-2.2.12.2.H	1118 FLUID MONITOR & CTRL
C-4-2.2.3.e	1155 PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS
C-4-2.2.5.2.A	1059 STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS
C-4-2.2.5.3.K	1068 SUBSYSTEM MONITOR & CTRL BY CREW, GROUND
COMM1110(38)	3035 SPACE STATION CUSTOMER SYSTEM STATUS
COMM1312(20)	3036 GROUND CUSTOMER SYSTEM STATUS
SAAX0008(61)	3022 FLUIDS STATUS DATA
TDMX2150(51)	3056 VOLTAGE/CURRENT MONITOR

FUNCTION # FUNCTION TITLE
 4.5.4 DIAGNOSTIC SUPPORT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-4-2.2.5.2.A	1059 STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS
C-4-2.2.5.3.H	1065 SUPPORT SSPE C/O, ANALYSIS, OPS, & MAINTENANCE

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.5.4.3	TREND ANALYSIS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C4-2.2.11.2.B.2	1117 MMU, & EMU SERVICE/PERFORMANCE TREND DATA ANALYSIS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
4.5.4.3P	TREND ANALYSIS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C4-2.2.11.2.B.2	1117 MMU, & EMU SERVICE/PERFORMANCE TREND DATA ANALYSIS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
5.0	MANAGE SSDS FACILITIES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-3-3.2.H	1039 PROPRIETARY INFORMATION SECURITY
C-4-2.1.10.2.B	1050 REDUNDANCY MGMT. & STATUS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
5.1	MANAGE FLIGHT SYS FACILITIES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
C-2-3.1.1	1001 HABITABLE SS MODULE SHALL PROVIDE COM & CTRL & DATA HANDLING
C-4-2.2.5.2.A	1059 STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
5.1.1	FLIGHT DATA BASE MANAGEMENT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
6.3.1	2045 ONBOARD GENERATION OF CUST STORED COMMAND SEQUENCES
C-4-2.2.5.3.A	1060 SUBSYSTEM STATUS ACCESS
C-4-2.2.5.3.E	1062 CORE FILE MGMT & DELIVERY
C-4-2.2.5.3.M	1070 DATA BASE MGMT
C-4-2.2.5.3m	1165 DBMS SFWE INTERFACES W/ PROGRAMS & OP SYST
C-4-2.2.5.3n	1166 ACCEPT MERGE, STORE 225MBPS FROM PLATFORM W/ GWTH MARGIN

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
5.1.2	FLIGHT DATA RESOURCE MGMT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
7.3.1	2062 SUPPORT FAULT DETECTION/ISOLATION/RECOVERY
7.3.4	2065 MEASURE, CONTROL RESOURCES AVAILABLE

FUNCTION # : 5.1.2 (Continued)

TDMX2150(51) 3056 VOLTAGE/CURRENT MONITOR

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
5.1.2.6	RECONFIG/DISCONNECT P/L,CORE

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
5.4.5	2165	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA
7.3.3	2064	MONITOR, PROTECT DATA SYSTEM INTERFACES
C-4-2.2.3.F	1057	RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES
C-4-2.2.3.e	1155	PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS
C-4-3.6.B	1125	PAYLOAD FACILITIES MGMT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
5.1.2.6P	RECONFIG/DISCONNECT P/L,CORE

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
5.4.5	2165	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA
7.3.3	2064	MONITOR, PROTECT DATA SYSTEM INTERFACES
C-4-2.2.3.F	1057	RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES
C-4-2.2.3.e	1155	PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS
C-4-3.6.B	1125	PAYLOAD FACILITIES MGMT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
5.2	MANAGE GROUND SYS FACILITIES

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
COMM1312(20)	3036	GROUND CUSTOMER SYSTEM STATUS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
5.2.3	TRANSMIT RECONFIGURATION SCHED

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
5.1.4	2029	PROVIDE FOR REALTIME REALLOC OF DATA DIST RESOURCES
5.1.9	2030	STATUS COMMUNICATION LINKS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
5.3.2.5	5.2.4

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
8.5.1	2184	MAINTAIN STATUS OF END-TO-END COMM. SYSTEM

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
6.0	DEVELOP, SIM, INTEGRATE & TRAIN

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
1.1.2	2101 SIMULTANEOUSLY SUPPORT PRE, DURING AND POST MISSION
6.1.5.2.4	2173 PERMIT CUST TO GENERATE CONTROLS FROM WORKSTATION
8.0	2072 PROVIDE TOOLS TO VERIFY INTERFACES
8.2.1	2073 VERIFY CUSTOMER/SSIS INTERFACES
C-3-2.3.D	1018 VERIFICATION OF MODS/UPGRADES PRIOR TO LAUNCH

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
6.1	INTERPRET MODEL REQUESTS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
8.2.2	2080 PROVIDE REMOTE, MENU-DRIVEN ACCESS TO SIMULATIONS
8.6.1	2086 PROVIDE SELECTION OF SIM. MODELS, STATIC TO VERY DYNAMIC

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
6.2	DEV COMM MODEL CONFIG

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
8.5.1	2085 VERIFY END-TO-END CUST DATA THROUGHPUT
SAAX0005(44)	3042 CUSTOMER PACKAGE VERIFICATION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
6.3	SIMULATE SS COMMUNICATION

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
8.1.2	2074 ACCEPT/RETURN CUSTOMER PAYLOAD TEST DATA
8.5.1	2085 VERIFY END-TO-END CUST DATA THROUGHPUT
C-3-2.3.B	1017 MINIMIZE GSE DURING GROUND TEST
C-3-2.3.C	1208 VERIFY FUNCTIONAL INTERFACES BEFORE LAUNCH
C-3-2.5.B	1027 PROVIDE ON-BOARD TRAINING
C-3-2.5.D	1029 ON BOARD TRAINING VIA GROUND DATA BASE SUPPORT
SAAX0005(44)	3042 CUSTOMER PACKAGE VERIFICATION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
6.4	DEVELOP H/W INTEG CONFIG

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
1.1.5	2104 MAXIMIZE USE OF STANDARD INTERFACES
2.1.1	2113 DEFINE CUST INTERFACE STANDARDS PER ISO/OSI
2.1.1.1	2114 USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY
2.1.2	2115 USE EXISTING STDS FOR FIRST 3 OSI LAYERS
2.1.2.1	2116 USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL
2.2.1	2117 OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES

FUNCTION # : 6.4 (Continued)

5.1.8	2185 PROVIDE STANDARD TELECOMM INTERFACES
5.4.4	2164 PROVIDE STD INTERFACE TO CUST ENCRYPT/DECRYPT EQPT
C-3-2.3.C	1208 VERIFY FUNCTIONAL INTERFACES BEFORE LAUNCH
SAAX0005(44)	3042 CUSTOMER PACKAGE VERIFICATION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
6.5	SIMULATE SS ELEMENTS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
8.1.2	2074 ACCEPT/RETURN CUSTOMER PAYLOAD TEST DATA
8.2.1.1	2076 VERIFY PROTOCOLS ABOVE PHYSICAL
8.2.1.2	2077 VERIFY FULL BREADTH OF COMMAND FROM FLT OR GND WORKSTATION
8.2.1.3	2078 VERIFY ANCILLARY DATA FORMATS/CONTENT
8.2.1.5	2181 PROVIDE REMOTE ACCESS CRT DISPLAY VERIFICATION
8.4.1	2083 PROVIDE SIM FUNCTIONS TO VALIDATE PROCEDURES, SOFTWARE
C-2-3.1.3	1209 P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST
C-3-2.3.A	1016 PAYLOAD PRELAUNCH VERIFICATION
C-3-2.3.B	1017 MINIMIZE GSE DURING GROUND TEST
C-3-2.3.C	1208 VERIFY FUNCTIONAL INTERFACES BEFORE LAUNCH
C-3-2.5.B	1027 PROVIDE ON-BOARD TRAINING
COMM1312(20)	3036 GROUND CUSTOMER SYSTEM STATUS
SAAX0005(44)	3042 CUSTOMER PACKAGE VERIFICATION

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
6.6	DEVELOP S/W INTEG CONFIG

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
1.1.5	2104 MAXIMIZE USE OF STANDARD INTERFACES
2.1.1	2113 DEFINE CUST INTERFACE STANDARDS PER ISO/OSI
2.1.1.1	2114 USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY
2.1.2	2115 USE EXISTING STDS FOR FIRST 3 OSI LAYERS
2.1.2.1	2116 USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL
2.2.1	2117 OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES
5.4.4	2164 PROVIDE STD INTERFACE TO CUST ENCRYPT/DECRYPT EQPT
8.2.1	2075 PROVIDE REMOTELY ACCESSIBLE SSIS SOFTWARE SIMULATION
8.2.2	2080 PROVIDE REMOTE, MENU-DRIVEN ACCESS TO SIMULATIONS
8.4.1	2083 PROVIDE SIM FUNCTIONS TO VALIDATE PROCEDURES, SOFTWARE
C-3-2.3.C	1208 VERIFY FUNCTIONAL INTERFACES BEFORE LAUNCH
COMM1213(32)	3041 CUSTOMER SOFTWARE DEVELOPMENT SUPPORT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
6.7	SIMULATE SS PROCESSORS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
6.3.1	2045 ONBOARD GENERATION OF CUST STORED COMMAND SEQUENCES

FUNCTION # : 6.7 (Continued)

8.1.2	2074	ACCEPT/RETURN CUSTOMER PAYLOAD TEST DATA
8.2.1	2075	PROVIDE REMOTELY ACCESSIBLE SSIS SOFTWARE SIMULATION
8.2.1.1	2076	VERIFY PROTOCOLS ABOVE PHYSICAL
8.2.1.2	2077	VERIFY FULL BREADTH OF COMMAND FROM FLT OR GND WORKSTATION
8.2.1.3	2078	VERIFY ANCILLARY DATA FORMATS/CONTENT
8.2.1.4	2079	VERIFY SSIS/DBMS/CUSTOMER INTERACTION
8.2.1.5	2181	PROVIDE REMOTE ACCESS CRT DISPLAY VERIFICATION
C-3-2.3.C	1208	VERIFY FUNCTIONAL INTERFACES BEFORE LAUNCH
COMM1213(32)	3041	CUSTOMER SOFTWARE DEVELOPMENT SUPPORT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
6.8	CONDUCT TRAINING

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
8.3.1	2081	PROVIDE CUSTOMER TRAINING FOR SSIS USE
8.3.2	2082	PROVIDE INTEGRATED, MULTI P/L OPS TRAINING
C-2-3.1.3	1209	P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST
C-3-2.5.A	1205	MINIMIZE EXTENSIVE CREW TRAINING
C-3-2.5.B	1027	PROVIDE ON-BOARD TRAINING
C-3-2.5.C	1028	EXTENSIVE PREFLIGHT TRAINING LIMITED TO CRITICAL SYSTEMS
C-3-2.5.D	1029	ON BOARD TRAINING VIA GROUND DATA BASE SUPPORT
C-3-2.5.D	1206	ON-BOARD & GROUND TRAINING COMMONALITY
C-3-3.1.E	1207	MINIMUM STATION SPECIALIZED TRAINING FOR CUSTOMERS
C-4-2.2.5.3d	1163	SUPPORT CREW TRAINING VIA MPAC
C-4-2.2.6.2.B.1	1075	COMMERCIAL VIDEO FOR CREW REC. & TRAINING
COMM2012(44)	3017	CUSTOMER TRAINING SUPPORT
SAAX0017(81)	3015	IN ORBIT TRAINING
TDMX2060(45)	3016	GROUND BASED TRAINING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
6.9	SOFTWARE DEVELOPMENT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
6.3.1	2045	ONBOARD GENERATION OF CUST STORED COMMAND SEQUENCES
8.4.1	2083	PROVIDE SIM FUNCTIONS TO VALIDATE PROCEDURES, SOFTWARE
C-3-2.3.B	1017	MINIMIZE GSE DURING GROUND TEST
C-3-3.2.K	1041	CREW/GROUND MODS TO S/W IN OP. SYSTEM
C-4-2.2.5.2b	1159	SUPPORT GEN PURPOSE PROGRAMMING LANGUAGE
COMM1213(32)	3041	CUSTOMER SOFTWARE DEVELOPMENT SUPPORT

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
7.1	DEVELOP LOGISTICS PLAN

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
C-3-3.4.A	1042	INTEGRATED LOGISTICS SYSTEM
C-4-2.1.11.1	1051	HAZARD CTRL BY WARNING DEV, SPECIAL PROC, EMERGENCY DEVICES
C-4-2.1.14	1054	INTEGRATED LOGISTICS SYSTEM
COMM1213(36)	3029	LOGISTICS SCHEDULING

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
7.2	LOG CUSTOMER USAGE OF SYSTEM

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
7.4.1	2067	PROVIDE P/L EVENT HISTORY OPERATIONS REPORT TO CUST
7.4.3	2069	REPORT SSIS RESOURCE DEMANDS TO CUSTOMER
7.4.3.1	2070	REPORT SSIS RESOURCE DEMAND TO CUSTOMER
7.4.4	2071	REPORT SSIS RESOURCE USAGE TO CUSTOMER

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
7.3	MAINTAIN TECHNICAL DOCUMENTS

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
C-3-3.4.A	1042	INTEGRATED LOGISTICS SYSTEM
C-4-2.1.11.1	1051	HAZARD CTRL BY WARNING DEV, SPECIAL PROC, EMERGENCY DEVICES

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
7.4	CONTROL INVENTORIES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
C-4-2.1.14.D	1055	INVENTORY MGMT. SYSTEM

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
7.4.1	MONITOR CUSTOMER INVENTORIES

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
7.1.4	2054	SUPPORT CUSTOMER LOGISTICS CONTROL

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
7.5	CONFIG. MGMT

<u>PARAGRAPH NUMBER</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
7.1.1	2050	CONFIGURATION MANAGEMENT

<u>FUNCTION #</u> <u>GDESIGN</u>	<u>FUNCTION TITLE</u> <u>GENERAL DESIGN REQUIREMENT</u>
<u>PARAGRAPH</u> <u>NUMBER</u>	<u>REQ#</u> <u>DESCRIPTOR</u>
1.1.10	2108 PERMIT CUST COMMUNICATION LINK INDEPENDENT OF TDRS/TDAS
1.1.4	2004 PROVIDE USER FRIENDLY ENVIRONMENT THRU P/L LIFE CYCLE
1.1.4	2103 MINIMIZE COMPLEXITY OF CUSTOMER INTERFACES
1.1.5	2104 MAXIMIZE USE OF STANDARD INTERFACES
1.1.6	2105 USE REPLACEABLE/EXPANDABLE MODULAR SYST DESIGN THROUGHOUT
1.1.7	2106 PERMIT PRIVATE COMMANDING, DATA TRANSMISSION, AND INSITU OPS
1.1.8	2107 SSIS/SCS SYSTEM SHALL BE USER FRIENDLY
5.1.3	2144 SUPP CUST DATA RATES PER PHASE B RFP
5.1.5	2146 PERMIT CUST PROVIDED DIRECT SS-TO-GROUND COMM
5.1.8	2149 PROVIDE STD TELECOMMUNICATION INTERFACES FOR CUST EQPT
5.2.9	2156 PROVIDE & SCHED SUFFICIENT UPLINK/DOWNLINK VIDEO CHANNELS
6.1.3	2167 ENABLE CUST P.L CTL AS IN OWN LABORATORY
6.1.3.1	2168 COMM/DATA UPLINK/DOWNLINK TRANSPARENT
6.1.5.2.1	2171 PROVIDE WORKSTATION AT CUST CTL FAC
6.1.5.2.2	2172 PROVIDE FLIGHT WORKSTATION
6.4.1	2175 PROVIDE P/L INFO TO CREW ON TERMINAL & HARDCOPY
6.4.1.2	2177 FLIGHT TERMINAL EQPT FUNCTIONALLY SAME AS COMMERCIAL
7.2.3	2178 PROVIDE MISSION SUPPORT THRU ONBOARD WORKSTATIONS
C-3-2.1f	1202 COORD PLAT., SS, & ORBITER FUNCTIONS DURING NSTS SERVICE
C-3-2.2c	1187 FAIL OP/FAIL SAFE/RESTORE-SAFETY, MISSION CRITICAL SYSTEMS
C-3-3.2g	1201 FUNCTIONALLY INDEPEND. SUBSYS TO FACITATE MAINTENANCE
C-3-3.3b	1188 MANUAL OVERRIDES, INHIBITS OF AUTOMATIC FUNCTIONS
C-4-1.2	1131 ACCOM ORDERLY CAPABILITY GROWTH TO 2000
C-4-2.1.10	1146 RELIABILITY PER SSP J8400001
C-4-2.1.10.1	1148 NON-CRITICAL SYSTEMS FS/RESTORABLE
C-4-2.1.10.1	1147 SAFETY CRITICAL SYSTEMS FO/FS/RESTORABLE
C-4-2.1.10.2a	1149 REDUNDANT SYSTEMS VERIFIABLE IN SITU
C-4-2.1.10.3	1150 DESIGN TO PREVENT FAILURE PROPAGATION
C-4-2.1.10.4	1151 SEPARATE ALTERNATIVE/REDUNDANT PATHS
C-4-2.1.11	1152 SAFETY PER SSP J8400001
C-4-2.1.11.4.a	1153 CREW ABLE TO OVERRIDE AUTOMATIC SAFING
C-4-2.1.11.4.b	1154 REDUNDANT CMMD/CTL IN SEPARATE PRES. VOLUMES
C-4-2.1.4.1	1137 DESIGN FOR INDEF. OPERATIONAL LIFETIME
C-4-2.1.5	1138 MODULAR DESIGN TO FACILITATE GROWTH
C-4-2.1.6	1139 ACCOM. INCORPORATION OF NEW TECHNOLOGY
C-4-2.1.7	1140 ACCOM. PHASED DEGREE OF AUTONOMY
C-4-2.1.8	1141 ACCOM. PHASED DEGREE OF AUTOMATION
C-4-2.1.9a	1142 FACILITATE ON-ORBIT & GROUND MAINTENANCE
C-4-2.1.9b	1143 ALL REASONABLE FAILURES REPAIRABLE
C-4-2.1.9d	1144 MAINTAIN CRITICAL SERVICES DURING MAINTENANCE
C-4-2.1.9h	1145 MINIMIZE CREW TIME FOR MAINTENANCE
C-4-2.2.5.1a	1156 OPERATOR IF THRU MPAC
C-4-2.2.5.1b	1157 PROVIDE DATA PARTITIONING & PROTECTION
C-4-2.2.5.1c	1158 ACCOMMODATE NEW TECHNOLOGY
C-4-2.2.5.2c	1160 USER FRIENDLY MAN-MACHINE IF LANGUAGE

FUNCTION # : GDESIGN (Continued)

C-4-2.2.5.3g	1164	STD FOR LANGUAGE, PROTOCOL, FORMAT TRANS RATES
C-4-2.2.6.2g	1169	CUST RESPONSIBLE FOR DATA RATES OVER TDRS CAPACITY
C-4-2.2.6.2g	1167	GND-SS, GND-COP COMM. THROUGH TDRSS
C-4-2.2.6.2j	1170	SUBSYS RESPONSIBLE FOR COMMAND AUTHENTICATION
C-4-3.8.1.b	1183	DETECT HAZARDOUS FLUIDS IN ALL GND SYSTEMS

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
GPFRF	GENERAL PERFORMANCE REQUIRMENT

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
1.1.1	2100	SSIS/SCS AVAILABLE 24 HRS/DAY, 7 DAYS/WEEK

<u>FUNCTION #</u>	<u>FUNCTION TITLE</u>
SSIS	SSIS/SCS, NOT SSDS

<u>PARAGRAPH</u>	<u>REQ#</u>	<u>DESCRIPTOR</u>
<u>NUMBER</u>		
2.1.1	2113	DEFINE CUST INTERFACE STANDARDS PER ISO/OSI
2.1.1.1	2114	USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY
2.1.2	2115	USE EXISTING STDS FOR FIRST 3 OSI LAYERS
2.1.2.1	2116	USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL
2.2.1	2117	OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES
2.2.3	2120	PACKETIZE SSIS/SCS TO CUST COMPUTER INTERCHANGE
2.2.4	2126	STD INTERFACE, PROTOCOL & FORMAT HEADER FOR ARCHIVED DATA
3.1.1	2089	OPTIONALLY PROCESS P.L DATA TO LEVEL 1A
3.1.6	2010	CUSTOMER DATA ARCHIVE SEARCH AND RETRIEVAL
3.1.7	2011	SUPPORT DATA EXCHANGE AMONG CUSTOMERS
3.3.1	2014	OPTIONAL CUSTOMER DATA PROCESSING TO LEVEL 1A
3.3.2	2131	SUPPORT REMOTE CENTER LEVEL 1B PROCESSING
3.3.3	2092	SSIS WILL PROVIDE S/W FOR ROUTINE DATA ANALYSIS
3.3.3	2015	SUPPORT ROUTINE CUSTOMER ANALYSES
3.3.4	2132	SUPPORT FACILITIES FOR QUICK LOOK USING CUST SOFTWARE
3.4.1	2016	MAINTAIN ARCHIVES OF CUSTOMER AND ENGINEERING DATA
3.4.1.1	2090	P/L DATA STORAGE WILL CONTAIN LEVEL 1A DATA IF REQUIRED
3.4.1.3	2091	LONG TERM ARCHIVING OF O/1A DATA SHALL BE A NEGOTIATED COST
3.4.1.6	2018	PROVIDE INVENTORIES OF LEVEL 0 AND 1A DATA
3.4.1.7	2019	LOG DATA TRANSFERS AND ACCESS INFORMATION
3.4.1.8	2134	ENSURE ARCHIVE DATA CATALOG INTEGRITY
3.4.1.9	2135	PROVIDE ARCHIVE FILE CATALOG, INDEX & CUST CONTROLS
3.4.3	2136	PROVIDE ARCHIVED DATA TO CUST, TIMES TO BE NEGOTIATED
3.4.4	2137	PROVIDE ARCHIVED DATA IN STD FORMATS
5.1.6	2147	SUPPORT VARIOUS OPTIONS FOR CUSTOMER DATA DISTRIBUTION
5.1.7	2148	SUPP ELECT & NON-ELECT DATA DISTRIBUTION
5.2.1	2150	SUPPORT VIDEO DISTRIBUTION AMONG ELEMENTS
5.2.2	2151	SUPPORT VIDEO DISTRIBUTION TO CUSTOMER
5.2.3	2031	SUPPORT VIDEO RECORD/PLAYBACK BETWEEN SSP ELEMENTS
5.2.4	2152	SUPPORT VIDEO COMMUNICATION PRIVACY
5.2.5	2153	SUPPORT DIST OF NTSC VIDEO SIGNALS

FUNCTION # : SSIS (Continued)

5.2.6	2094	SSIS SHALL PROVIDE AN ONLINE VIDEO CATALOG OF SERVICE OPTION
5.2.7	2154	PROVIDE VIDEO SIGNAL COLLECTION SUPP EQPT/PROCEDURES
5.2.8	2155	DESIGN VIDEO DIST ACCESS TO UNAUTHORIZED CUSTOMERS
5.3.1	2157	SUPPORT AUDIO DIST. AMONG ELEMENTS
5.3.2	2158	SUPPORT AUDIO DIST. TO CUSTOMERS
5.3.3	2032	SUPP AUDIO RECORD/PLAYBACK BETWEEN SSP ELEMENTS
5.3.4	2159	SUPPORT AUDIO COMMUNICATION PRIVACY
5.3.5	2160	SUPPORT TELECONFERENCING WITH SPACE NODE
5.4.1	2161	PROVIDE DIGITAL DATA COMM AMONG ELEMENTS
5.4.2	2162	PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE
5.4.4	2164	PROVIDE STD INTERFACE TO CUST ENCRYP/DECRYPT EQPT
5.4.5	2165	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA
6.1.5.2.3	2096	SSIS SHALL PROVIDE REMOTE WORK STATION FOR CUST. HOME INSTIT
7.4.3	2069	REPORT SSIS RESOURCE DEMANDS TO CUSTOMER
7.4.3.1	2070	REPORT SSIS RESOURCE DEMAND TO CUSTOMER
7.4.4	2071	REPORT SSIS RESOURCE USAGE TO CUSTOMER
8.1.1	2180	PROVIDE PORTABLE HW I/F VERIFICATION EQPT

FUNCTION #
TMISFUNCTION TITLE
TECHNICAL MGMT INFORMATION SYSPARAGRAPH
NUMBER

REQ# DESCRIPTOR

0.3	2003	COORDINATE UPLINK/DOWNLINK WITH NCC VIA SSCC
2.1.1	2113	DEFINE CUST INTERFACE STANDARDS PER ISO/OSI
2.1.1.1	2114	USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY
2.1.2	2115	USE EXISTING STDS FOR FIRST 3 OSI LAYERS
2.1.2.1	2116	USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL
2.2.1	2117	OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES
2.2.3	2120	PACKETIZE SSIS/SCS TO CUST COMPUTER INTERCHANGE
4.2.1	2093	SSIS SHALL PROVIDE A CATALOG OF CUSTOMER DATA PRODUCTS
4.2.1.1	2140	PROVIDE CREW ACCESS TO TMIS & SSDS DATA BASE
4.2.1.2	2141	CUST ACCESS TO TMIS AND SSDS DATA BASE SHALL BE USER FRIEND
4.2.1.3	2142	TMIS, SSDS DATA BASE ACCESS BY DIAL UP LINE
4.2.1.3.1	2143	TMIS, SSDS DATA BASE ACCESS VIA STD COMMERCIAL DATA RATES
7.1.2	2052	LONG TERM MISSION PLANNING AND SUPPORT DATA
7.1.2	2095	SSIS SHALL PROVIDE LONG TERM PLANNING OF MISSIONS, RENDEZVOU
7.1.4	2054	SUPPORT CUSTOMER LOGISTICS CONTROL
7.2.1	2055	SUPPORT INTERACTIVE P/L PLANNING/SCHEDULING
7.2.2	2056	SUPPORT REQUESTS FOR SSP RESOURCES
7.2.3	2178	PROVIDE MISSION SUPPORT THRU ONBOARD WORKSTATIONS
7.2.4	2059	PROVIDE SS RESOURCES AND AVAILABILITY INFO.
7.2.5	2060	PROVIDE RESTRICTED COMMANDS LIST
7.2.6	2061	SUPPORT RAPID REPLANNING FOR OPPORTUNITIES
7.3.4	2186	ANNUNCIATE &/OR AUTO RESTRICT DISCREPANT RESOURCE USE
8.4.2	2084	PROVIDE INTERACTIVE REMOTE PLANNED OPER SUBMISSION
C-3-2.4.C	1020	LONGTERM PLANNING ON GROUND

FUNCTION # : TMIS (Continued)

C-3-2.4.G	1024 GROUND CTRL CENTER PLAN OPERATIONS
C-3-3.1.B	1032 CUST. NEGOTIATE OF ADDITIONAL TRANSPORTATION

Appendix A-7

Definition of Requirement Entry Fields

FUNCTIONAL REQUIREMENTS QUESTIONNAIRE DESCRIPTION

This list of definitions will help the reader understand the entries in the requirements data base. Only functional and performance requirements are presented in A-9.

ENTRY	DESCRIPTION
Prepared By	Name of person developing the initial requirements data
Revised By	Name of person revising the requirements data
Revision No.	Number of last revision
Revision Date	Date of last revision
Function Number	4-Digit number derived from the function tree
Function Name	50 character name from function tree
Function Type	Single character showing type C - Basic or operating core service D - Data handling U - User service (primarily supports the operator or the customer)
Program Phase	Character showing Space Station phase during which this function will be operating. More than one answer is allowed. I - Initial operational capability G - Growth phase (5 years past IOC) B1 through B7 - Space Station build-up phases (see Space Station Reference Configuration document, pp. 309-347)
Description	Four 80 character lines of text describing what the function is and emphasizing its unique features
Function Sources	Up to four key entries that point to the main requirements documents and paragraphs, that led to the derivation of the function

Criticality:

Recovery Time

Single character code indicating necessary recovery time for failures involving SSDS

- 1) No interruption allowed, redundant
- 2) Recover within 10 sec, hot backup
- 3) Recover within 10 min, cold backup
- 4) Recover within 24 hrs, simple repair, LRU available
- 5) Recover within 21 days, safe haven used until recovered
- 6) Recover within 90 days, next logistics supply cycle
- 7) No limit on recovery

Impact

Single character code indicating consequences of failure of the SSDS to meet demands.

- 1) Loss of life
- 2) Hazard, damage to space station
- 3) Damage to space station equipment or mission equipment
- 4) Mission aborted, loss of key data, economic penalty
- 5) Crew, operator inconvenience
- 6) No substantial impact

Privacy

Single character indicating data access control

- P - Physical separation, no SSDS access
- S - Secured, special authorization
- L - Limited access, general authorization
- U - Unlimited
- N - Not Determined

Alarms Required

Single character indicating yes or no

- Y - Yes
- N - No

No. of Alarms

If alarms are required, indicate the number of parameters that may trigger an alarm.

Additional Requirements

Four 80 character lines of text identifying the document and paragraph number and describing additional requirements of the function.

I/O Entry Type

Character designating Input or Output

- I - Input
- O - Output

I/O Function Trigger	Character designating if input sources are allowed to trigger function execution or if output destinations are triggered by function Y - Yes N - No
I/O Source/Dest. Type	Character identifying the type of source or destination, as D - Data Store E - External Agency F - Function M - Customer Mission Payload
I/O Source/Dest. Code	Numerical code or abbreviated element name of source/destination (definitions in A-3)
I/O Rate Code	Character indicating if this data flow is sent on regular, cyclic intervals, or at arbitrary intervals on demand. C - Cyclic (regular intervals) D - Demand (arbitrary intervals)
I/O Interval	Regardless of whether this data flow is cyclic or on demand, indicate the average time interval (in seconds) between transmissions of this data.
I/O Data Amount	Amount of data in I/O stream in Kbytes

A-8
Directory of the Functions

FUNCTION DIRECTORY

<u>FUNCTION NUMBER</u>	<u>FUNCTION NAME</u>
1.1.1	ACQUIRE REALTIME DATA
1.1.2	PRIORITIZE REALTIME DATA
1.1.3	MONITOR REALTIME DATA
1.1.4	DISPATCH REALTIME DATA
1.1.5	FORMAT REALTIME DATA
1.2.1	ACQUIRED DELAYED PAYLOAD DATA
1.2.2	PRIORITIZE DELAYED DATA
1.2.3	MONITOR DELAYED DATA
1.2.4	DISPATCH DELAYED DATA
1.2.5	FORMAT DELAYED DATA
1.3.1	PRE-PROCESSING
1.3.2	DATA CAPTURE
1.3.3	ROUTING AND TRANSMISSION
1.3.4	QUALITY VERIFICATION
1.4.1	CUSTOMER DATA INTERFACE MGT
1.4.2	CUSTOMER DATA CAPTURE
1.4.3	CUSTOMER DATA HANDLING
1.4.4	ANCILLARY DATA ACQUISITION
1.4.5	LEVEL 0 PROCESSING
1.4.6	CUSTOMER DATA ACCOUNTING
1.4.7	ROUTING AND TRANSMISSION
1.5.1	CORE DATA INTERFACE MANAGEMENT
1.5.2	CORE DATA CAPTURE
1.5.3	DATA EXTRACTION
1.5.4	DISPLAYS AND CONTROLS
1.5.5	ENGINEERING DATA ANALYSIS
1.5.6	CORE DATA ACCOUNTING
2.1	VALIDATE PAYLOAD COMMANDS DATA
2.2	CHECK SSDS SERVICE REQUIREMENTS
2.3.1	AUTHORIZE OPERATOR
2.3.2	AUTHORIZE OPERATION
2.4	PROVIDE ANCILLARY DATA
2.5.1	CUSTOMER DATA PROCESSING
2.5.2	CUSTOMER PAYLOAD OPERATION
2.5.3.1	OTV SERVICE
2.5.3.2	OTV CHECKOUT & DIAGNOSTICS
2.5.3.3	OTV DEPLOYMENT/RETRIEVAL
2.5.3.4	OTV OPERATION
2.5.3.5	OTV STATUS
2.5.4.1	OMV SERVICE
2.5.4.2	OMV CHECKOUT & DIAGNOSTICS
2.5.4.3	OMV DEPLOYMENT/RETRIEVAL
2.5.4.4	REMOTE OPERATIONS CONTROL
2.5.4.5	OMV OPERATION
2.5.4.6	OMV STATUS (TO REMOTE CUSTOMER)
2.5.5	CUSTOMER PAYLOAD CHECKOUT/SERVICE
2.6	SSPE CHECKOUT AND SERVICING
3.1.1	DEVELOP NORMAL DAY PAYLOAD OPERATIONS
3.1.2	DEVELOP NORMAL DAY CORE SYSTEM OPERATIONS

FUNCTION DIRECTORY

<u>FUNCTION NUMBER</u>	<u>FUNCTION NAME</u>
3.1.3	DEVELOP MODE COMPATIBILITY MATRIX
3.1.4	DEVELOP MAJOR EVENT OPERATIONS
3.2.1	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2.2	INCORPORATE NEW/REVISED OPERATIONS
3.2.3	CHECK FOR CONFLICTS
3.2.4	CHECK FOR FACILITIES CAPABILITIES
3.2.5	RESOLVE CONFLICTS
3.2.6	MAINTAIN SHORT TERM SCHEDULES
3.3.1	TIME TAG OPERATIONS
3.3.2	CHECK SCHEDULE CONFLICTS
3.3.3	MAINTAIN OPERATING EVENTS SCHEDULE
3.3.4	ADJUST FOR UNSCHEDULED MODE CHANGES
3.4.1	SEQUENCE PAYLOAD OPERATIONS
3.4.2	SEQUENCE CORE SYSTEM OPERATIONS
3.4.3	COMMAND SCHEDULED MODE CHANGE
3.4.4	CHECK FOR EXECUTABILITY
4.1.1.1	SPACE CRAFT STATE/ORBIT DETERMINATION
4.1.1.2	CONSTELLATION STATE/ORBIT DETERMINATION
4.1.1.3	DETERMINE EPHEMERIDES (SUN, MOON, ETC.)
4.1.1.4	ATTITUDE DETERMINATION
4.1.1.5	NAVIGATION STATE PROPAGATION
4.1.1.6	DEVICE MANAGEMENT
4.1.1.7	COMMAND INTERFACE PROCESSING
4.1.2.1	REBOOST/REENTRY TARGETING
4.1.2.2	MANEUVER COORDINATION
4.1.2.3	COLLISION CHECK
4.1.2.4	REBOOST MANEUVER
4.1.2.5	TETHER CONTROL
4.1.2.6	DETERMINE POINTING MOUNT CONTROLS
4.1.2.7	DEVICE MANAGEMENT
4.1.2.8	COMMAND INTERFACE PROCESSING
4.1.3.1	CONTROL ATTITUDE AND TRANSLATION
4.1.3.2	GENERATE ATTITUDE COMMANDS
4.1.3.3	MOMENTUM MANAGEMENT
4.1.3.4	POINTING MOUNT CONTROL
4.1.3.5	DEVICE MANAGEMENT
4.1.3.6	COMMAND INTERFACE PROCESSING
4.1.4.1	COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATES
4.1.4.2	MANAGE CONSTELLATION ORBIT MANEUVERS
4.1.4.3	SCHEDULE DEPLOYMENT/RENDEZVOUS
4.1.4.4	MANAGE RENDEZVOUS
4.1.4.5	TARGET COLLISION AVOIDANCE
4.1.4.6	COMMAND INTERFACE PROCESSING
4.1.5.1	LONG RANGE OBJECT TRACKING
4.1.5.2	PROXIMITY TRACKING
4.1.5.3	OBJECT CATALOGUE MAINTENANCE
4.1.5.4	TRACKING DATA CONDITIONING
4.1.5.5	DEVICE MANAGEMENT
4.1.5.6	COMMAND INTERFACE PROCESSING

FUNCTION DIRECTORY

<u>FUNCTION NUMBER</u>	<u>FUNCTION NAME</u>
4.1.6.1	TIME SOURCE MANAGEMENT
4.1.6.2	TIME UPDATE
4.1.6.3	FREQUENCY SOURCE MANAGEMENT
4.1.6.4	DEVICE MANAGEMENT
4.1.6.5	COMMAND INTERFACE PROCESSING
4.2.1.1	EVALUATE ARRAY PERFORMANCE
4.2.1.2	CONFIGURE POWER DISTRIBUTION
4.2.1.3	POWER SOURCE MANAGEMENT
4.2.1.4	ARRAY DEPLOYMENT
4.2.1.5	PROJECT ENERGY AVAILABLE
4.2.1.6	DEVICE MANAGEMENT
4.2.1.7	COMMAND I/F PROCESSING
4.2.2.1	MANAGE THERMAL LOAD
4.2.2.2	THERMAL DEVICE MANAGEMENT
4.2.2.3	PROJECT THERMAL LOAD CAPACITY
4.2.2.4	COMMAND INTERFACE PROCESSING
4.2.3.1	MECHANISM CONTROL/SAFETY
4.2.3.2	MRMS OPERATIONS
4.2.3.3	MANAGE DOCKING/BERTHING
4.2.3.4	DEVICE MANAGEMENT
4.2.3.5	COMMAND INTERFACE PROCESSING
4.2.4.1	CONTROL ATMOS. PRESSURE & COMPOSITION
4.2.4.2	CONTROL TEMP/HUMIDITY
4.2.4.3	POTABLE WATER MANAGEMENT
4.2.4.4	GREY WATER MANAGEMENT
4.2.4.5	FIRE DETECTION AND CONTROL
4.2.4.6	DEVICE MANAGEMENT
4.2.4.7	COMMAND I/F PROCESSING - ECLSS
4.2.5.1	COMMUNICATION NETWORK CONTROL
4.2.5.2	COMMUNICATION EQUIPMENT CONTROL
4.2.5.3	COMMUNICATION EQUIPMENT STATUS MONITORING
4.2.5.4	FAILURE DETECTION & RECOVERY
4.2.5.5	COMMAND PROCESSING
4.2.5.6	COMMUNICATION INTERFACE CONTROL
4.2.5.7	TELEMETRY CONTROL
4.3.1.1	CREW PHYSIOLOGICAL MONITORING
4.3.1.2	MEDICAL DIAGNOSTICS SUPPORT
4.3.1.3	TREATMENT SUPPORT
4.3.1.4	NUTRITION ANALYSIS
4.3.1.5	EXERCISE PLANNER
4.3.1.6	PHYSIOLOGICAL DATA TRANSFORMATION & ANALYSIS
4.3.1.7	COMMAND I/F PROCESSING - COMM
4.3.2.1	CAUTIONS AND WARNINGS
4.3.2.2	ABNORMAL AND EMERGENCY PROCEDURES
4.3.2.3	AUTOMATIC CONTROL PROCESSING
4.3.2.4	COMMAND INTERFACE PROCESSING
4.3.3.1	RECREATION SERVICES
4.3.3.2	CREW/GROUND COMMUNICATION
4.3.3.3	COMMAND INTERFACE PROCESSING

FUNCTION DIRECTORY

<u>FUNCTION NUMBER</u>	<u>FUNCTION NAME</u>
4.3.4.1	EMU CONTAMINATION CONTROL
4.3.4.2	EMU MONITOR AND MAINTENANCE
4.3.4.3	MMU MONITOR AND MAINTENANCE
4.3.4.4	SAFETY INTERLOCK MONITOR & CONTROL
4.3.4.5	EVA REAL TIME MONITOR & CONTROL
4.3.4.6	EVA VISUAL INFORMATION
4.3.4.7	AIRLOCK ATM. PRESS. & COMP. CO
4.3.4.8	AIRLOCK TEMP & HUM. CONTROL
4.3.4.9	DEVICE MANAGEMENT
4.3.4.10	COMMAND INTERFACE PROCESSING
4.3.5.1	MAINTENANCE AND REPAIR PROCEDURES
4.3.5.2	OPERATIONS PROCEDURES
4.3.5.3	GENERAL DATA PROCESSING SUPPORT
4.3.5.4	GENERAL PURPOSE PROGRAMMING LANGUAGE
4.3.5.5	UPDATE SYSTEM SOFTWARE
4.4.1.1	GROUND TRACK DETERMINATION
4.4.1.2	MAGNETIC FIELD DETERMINATION
4.4.1.3	PALLET COARSE POINTING
4.4.1.4	RELATIVE ALIGNMENT DETERMINATION
4.4.2	ENVIRONMENT MONITOR
4.4.3	TRACKING SERVICES
4.5.1	MONITOR CORE SYSTEM'S STATUS
4.5.2	MONITOR CUSTOMER SYSTEMS STATUS
4.5.3	MASS PROPERTIES CONFIGURATION UPDATE
4.5.4.1	FAULT ANALYSIS
4.5.4.2	FAULT CORRECTION
4.5.4.3	TREND ANALYSIS
4.5.5	SYSTEM TEST AND EVALUATION
4.5.6	COMMAND INTERFACE PROCESSING
5.1.1.1	UPDATE/ACCESS AND SYNCHRONIZATION
5.1.1.2	DATA FILE MANAGEMENT
5.1.1.3	MASS MEMORY RESOURCE MANAGEMENT
5.1.1.4	ARCHIVAL STORAGE
5.1.1.5	DEVICE MANAGEMENT
5.1.1.6	COMMAND INTERFACE PROCESSING
5.1.2.1	LOAD SCHEDULING
5.1.2.2	SYSTEM EXECUTIVE
5.1.2.3	INITIALIZATION CONFIGURATION CONTROL
5.1.2.4	CONFIGURE DATA PROCESSING EQUIPMENT
5.1.2.5	FACILITY STATUS
5.1.2.6	RECONFIGURE/DISCONNECT PAYLOADS & CORE SYSTEMS
5.1.2.7	DEVICE MANAGEMENT
5.1.2.8	COMMAND INTERFACE PROCESSING
5.1.3.1	DISPLAY AND CONTROL DEVICE MANAGEMENT
5.1.3.2	DISPLAY AND CONTROL COMMAND INTERFACE PROCESSING
5.2.1	INTERFACE MANAGEMENT
5.2.2	SCHEDULE/STATUS COMPARE
5.2.3	TRANSMIT RECONFIGURATION SCHEDULE
5.2.4	GROUND STATUS DATABASE MANAGEMENT

FUNCTION DIRECTORY

<u>FUNCTION NUMBER</u>	<u>FUNCTION NAME</u>
5.2.5	ADJUST FOR UNSCHEDULED MODE CHANGES
6.1	INTERPRET MODEL REQUESTS
6.2	DEVELOP COMMUNICATIONS MODEL CONFIGURATION
6.3	SIMULATE SPACE STATION SYSTEM COMM ELEMENTS
6.4	DEVELOP HARDWARE INTEGRATION CONFIGURATION
6.5	SIMULATE SPACE STATION ELEMENTS
6.6	DEVELOP SOFTWARE INTEGRATION CONFIGURATION
6.7	SIMULATE SPACE STATION PROCESSORS
6.8.1	DEFINE TRAINING PLAN
6.8.2	DEFINE TRAINING SCRIPT
6.8.3	DEFINE MODEL REQUIREMENTS
6.8.4	CONFIGURE SIMULATION
6.8.5	CONDUCT TRAINING EXERCISE
6.8.6	EVALUATE OPERATOR PERFORMANCE
6.8.7	MAINTAIN OPERATOR TRAINING STATUS
6.9.1	CONFIGURATION CONTROL & MANAGEMENT SUPPORT
6.9.2	REQUIREMENTS ANALYSIS & GENERATION TOOLS
6.9.3	DESIGN & CODE GENERATION
6.9.4	SYSTEM BUILD & DELIVERY
6.9.5	TESTING & ANALYSIS
6.9.6	DOCUMENTATION
6.9.7	COMMUNICATIONS
6.9.8	RECONFIGURATION DATA MANAGEMENT
7.1.1	ANALYZE SYSTEM PERFORMANCE
7.1.2	DETERMINE EFFECTS ON INTEGRATED PLAN
7.1.3	ANALYZE AFFECTED PLANS
7.1.4	ANALYZE IMPACT OF PROGRAM CHANGES
7.2	LOG CUSTOMER USAGE OF SYSTEM
7.3.1	ANALYZE SYSTEM OPERATION
7.3.2	UPDATE TECHNICAL DOCUMENTS
7.3.3	ANALYZE PROGRAM CHANGES
7.3.4	TRANSMIT PROCEDURES
7.4.1	MONITOR CUSTOMER INVENTORIES
7.4.2	MONITOR STATION INVENTORIES
7.4.3	MONITOR GROUND FACILITY INVENTORIES.
7.5	CONFIGURATION MANAGEMENT
1.1.1P	ACQUIRE REALTIME DATA
1.1.2P	PRIORITIZE REALTIME DATA
1.1.3P	MONITOR REALTIME DATA
1.1.4P	DISPATCH REALTIME DATA
1.1.5P	FORMAT REALTIME DATA
1.2.1P	ACQUIRED DELAYED PAYLOAD DATA
1.2.2P	PRIORITIZE DELAYED DATA
1.2.3P	MONITOR DELAYED DATA
1.2.4P	DISPATCH DELAYED DATA
1.2.5P	FORMAT DELAYED DATA
1.5.1P	CORE DATA INTERFACE MANAGEMENT
1.5.2P	CORE DATA CAPTURE
1.5.3P	DATA EXTRACTION

FUNCTION DIRECTORY

<u>FUNCTION NUMBER</u>	<u>FUNCTION NAME</u>
1.5.4P	DISPLAYS AND CONTROLS
1.5.5P	ENGINEERING DATA ANALYSIS
1.5.6P	CORE DATA ACCOUNTING
2.1P	VALIDATE PLATFORM PAYLOAD COMMANDS DATA
2.2P	CHECK PLATFORM P/L COMMAND RESTRICTION/CONSTRAINT
2.3.1P	AUTHORIZE OPERATOR
2.3.2P	AUTHORIZE OPERATION
2.4P	PROVIDE ANCILLARY DATA
2.5.1P	CUSTOMER DATA PROCESSING
2.5.2P	CUSTOMER PAYLOAD OPERATION
3.1.1P	DEVELOP NORMAL DAY PAYLOAD OPERATIONS
3.1.2P	DEVELOP NORMAL DAY CORE SYSTEM OPERATIONS
3.1.3P	DEVELOP MODE COMPATIBILITY MATRIX
3.1.4P	DEVELOP MAJOR EVENT OPERATIONS
3.2.1P	CONFIRM PAYLOAD AND CORE SCHEDULES
3.2.2P	INCORPORATE NEW/REVISED OPERATIONS
3.2.3P	CHECK FOR CONFLICTS
3.2.4P	CHECK FOR FACILITIES CAPABILITIES
3.2.5P	RESOLVE CONFLICTS
3.2.6P	MAINTAIN SHORT TERM SCHEDULES
3.3.1P	TIME TAG OPERATIONS
3.3.2P	CHECK SCHEDULE CONFLICTS
3.3.3P	MAINTAIN OPERATING EVENTS SCHEDULE
3.3.4P	ADJUST FOR UNSCHEDULED MODE CHANGES
3.4.1P	SEQUENCE PAYLOAD OPERATIONS
3.4.2P	SEQUENCE CORE SYSTEM OPERATIONS
3.4.3P	COMMAND SCHEDULED MODE CHANGE
3.4.4P	CHECK FOR EXECUTABILITY
4.1.1.1P	SPACE CRAFT STATE/ORBIT DETERMINATION
4.1.1.3P	DETERMINE EPHEMERIDES (SUN, MOON, ETC.)
4.1.1.4P	ATTITUDE DETERMINATION
4.1.1.5P	NAVIGATION STATE PROPAGATION
4.1.1.6P	DEVICE MANAGEMENT
4.1.1.7P	COMMAND INTERFACE PROCESSING
4.1.2.1P	REBOOST/REENTRY TARGETING
4.1.2.2P	MANEUVER COORDINATION
4.1.2.4P	REBOOST MANEUVER
4.1.2.6P	DETERMINE POINTING MOUNT CONTROLS
4.1.2.7P	DEVICE MANAGEMENT
4.1.2.8P	COMMAND INTERFACE PROCESSING
4.1.3.1P	CONTROL ATTITUDE AND TRANSLATION
4.1.3.2P	GENERATE ATTITUDE COMMANDS
4.1.3.3P	MOMENTUM MANAGEMENT
4.1.3.4P	POINTING MOUNT CONTROL
4.1.3.5P	DEVICE MANAGEMENT
4.1.3.6P	COMMAND INTERFACE PROCESSING
4.1.6.1P	TIME SOURCE MANAGEMENT
4.1.6.2P	TIME UPDATE
4.1.6.3P	FREQUENCY SOURCE MANAGEMENT

FUNCTION DIRECTORY

<u>FUNCTION NUMBER</u>	<u>FUNCTION NAME</u>
4.1.6.4P	DEVICE MANAGEMENT
4.1.6.5P	COMMAND INTERFACE PROCESSING
4.2.1.1P	EVALUATE ARRAY PERFORMANCE
4.2.1.2P	CONFIGURE POWER DISTRIBUTION
4.2.1.3P	POWER SOURCE MANAGEMENT
4.2.1.4P	ARRAY DEPLOYMENT
4.2.1.5P	PROJECT ENERGY AVAILABLE
4.2.1.6P	DEVICE MANAGEMENT
4.2.1.7P	COMMAND I/F PROCESSING
4.2.2.1P	MANAGE THERMAL LOAD
4.2.2.2P	THERMAL DEVICE MANAGEMENT
4.2.2.3P	PROJECT THERMAL LOAD CAPACITY
4.2.2.4P	COMMAND INTERFACE PROCESSING
4.2.3.1P	MECHANISM CONTROL/SAFETY
4.2.3.3P	MANAGE DOCKING/BERTHING
4.2.3.4P	DEVICE MANAGEMENT
4.2.3.5P	COMMAND INTERFACE PROCESSING
4.2.5.1P	COMMUNICATION NETWORK CONTROL
4.2.5.2P	COMMUNICATION EQUIPMENT CONTROL
4.2.5.3P	COMMUNICATION EQUIPMENT STATUS MONITORING
4.2.5.4P	FAILURE DETECTION & RECOVERY
4.2.5.5P	COMMAND PROCESSING
4.2.5.6P	COMMUNICATION INTERFACE CONTROL
4.2.5.7P	TELEMETRY CONTROL
4.3.2.1P	CAUTIONS AND WARNINGS
4.3.2.2P	ABNORMAL AND EMERGENCY PROCEDURES
4.3.2.3P	AUTOMATIC CONTROL PROCESSING
4.3.2.4P	COMMAND INTERFACE PROCESSING
4.4.1.1P	GROUND TRACK DETERMINATION
4.4.1.2P	MAGNETIC FIELD DETERMINATION
4.4.1.3P	PALLET COARSE POINTING
4.4.1.4P	RELATIVE ALIGNMENT DETERMINATION
4.4.2P	ENVIRONMENT MONITOR
4.5.1P	MONITOR CORE SYSTEM'S STATUS
4.5.2P	MONITOR CUSTOMER SYSTEMS STATUS
4.5.3P	MASS PROPERTIES CONFIGURATION UPDATE
4.5.4.1P	FAULT ANALYSIS
4.5.4.2P	FAULT CORRECTION
4.5.4.3P	TREND ANALYSIS
4.5.5P	SYSTEM TEST AND EVALUATION
4.5.6P	COMMAND INTERFACE PROCESSING
5.1.1.1P	UPDATE/ACCESS AND SYNCHRONIZATION
5.1.1.2P	DATA FILE MANAGEMENT
5.1.1.3P	MASS MEMORY RESOURCE MANAGEMENT
5.1.1.5P	DEVICE MANAGEMENT
5.1.1.6P	COMMAND INTERFACE PROCESSING
5.1.2.1P	LOAD SCHEDULING
5.1.2.2P	SYSTEM EXECUTIVE
5.1.2.3P	INITIALIZATION CONFIGURATION CONTROL

FUNCTION DIRECTORY

FUNCTION
NUMBERFUNCTION NAME

5.1.2.4P	CONFIGURE DATA PROCESSING EQUIPMENT
5.1.2.5P	FACILITY STATUS
5.1.2.6P	RECONFIGURE/DISCONNECT PAYLOADS & CORE SYSTEMS
5.1.2.7P	DEVICE MANAGEMENT
5.1.2.8P	COMMAND INTERFACE PROCESSING

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Requirements Data Sheets

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20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.1 NAME: ACQUIRE REALTIME DATA
PREPARED BY: T.J. SMITH REVISED BY: BOWMAN/EASTON
REVISION: 6 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 07/01/85

DESCRIPTION:

RESERVE STAGING BUFFERS FOR ENGINEERING DATA, POLL AND MOVE CYCLIC
DATA TO STAGING BUFFERS, ACCEPT TELECOMMANDS AND ACKNOWLEDGEMENTS
INTO STAGING BUFFERS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.1 NAME: ACQUIRE REALTIME DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	CORESIST	C	0.100	2.000
I	Y	F	2.5	C	15.000	0.200
O	Y	F	1.1.2	C	0.100	0.050
O	N	D	P/L OPS	D	1.000	0.500
I	Y	E	SS P/L	C	0.100	5.000
O	N	D	R/T BUFF	C	0.100	7.000
I	Y	E	OMVOTVIF	C	0.100	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.2 NAME: PRIORITIZE REALTIME DATA
PREPARED BY: T.J. SMITH REVISED BY: BOWMAN
REVISION: 3 REVISION DATE: 04/09/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 04/24/85

DESCRIPTION:
CONTROL TELEMETRY FORMATTED BUFFER BUILDING BY PRIORITIZING
UNFORMATTED BUFFERS ACQUIRED IN REAL TIME; COORDINATE REALTIME
DATA TELEMETRY SERVICE REQUESTS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.2 NAME: PRIORITIZE REALTIME DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.1.1	C	0.100	0.050
I	Y	D	R/T BUFF	C	0.100	0.200
O	Y	F	1.1.5	C	0.100	7.000
I	Y	D	PRIORITY	D	86000.000	0.050

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.3 NAME: MONITOR REALTIME DATA
PREPARED BY: T.J. SMITH REVISED BY: P.J. BOWMAN
REVISION: 1 REVISION DATE: 05/08/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 05/08/85

DESCRIPTION:
MONITOR REALTIME DATA TO BE TRANSMITTED; SCHEDULE DISPATCHING DATA;
RECORD DATA TRANSMISSIONS; MONITOR LINK AVAILABILITY; SCHEDULE DELAY
OF REALTIME DATA FOR LINK LOSS; CONTROL COMMUNICATIONS CHANNELS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 7.1.1 CUSTOMER DATA TRACKING

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.3 NAME: MONITOR REALTIME DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.2.5.7	D	60.000	0.100
I	Y	D	R/T BUFF	C	0.100	0.200
O	Y	D	DATAACCT	D	60.000	0.200
O	Y	F	1.1.4	C	60.000	0.100
O	Y	F	4.2.5.7	D	60.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.4 NAME: DISPATCH REALTIME DATA
PREPARED BY: T.J. SMITH REVISED BY: BOWMAN
REVISION: 3 REVISION DATE: 05/06/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 05/06/85

DESCRIPTION:
CONTROL TRANSMISSION OF REALTIME DATA TO COMMUNICATION PROCESSOR;
STORE DATA IN BUFFERS DURING LINK LOSS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.4 NAME: DISPATCH REALTIME DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.1.5	C	0.100	0.050
I	N	D	R/T BUFF	C	0.100	4.000
O	Y	F	1.3.1	C	0.100	4.000
O	N	D	DELAYDAT	C	0.100	4.000
O	N	F	1.3.2	C	0.100	7.000
I	Y	F	1.1.3	C	60.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.5 NAME: FORMAT REALTIME DATA
PREPARED BY: T.J. SMITH REVISED BY: BOWMAN
REVISION: 3 REVISION DATE: 05/06/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 05/06/85

DESCRIPTION:
BUILD FORMATTED TELEMETRY BUFFERS; PRIORITIZE MULTIPLE DATA SOURCES;
SIGNAL DISPATCH FUNCTION WHEN TELEMETRY BUFFERS ASSEMBLED.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.5 NAME: FORMAT REALTIME DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	1.1.4	C	0.100	0.050
O	N	D	R/T BUFF	C	0.100	7.000
I	Y	F	1.1.2	C	0.100	7.000
I	N	D	R/T BUFF	C	0.100	7.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.1 NAME: ACQUIRED DELAYED PAYLOAD DATA
PREPARED BY: T.J. SMITH REVISED BY: BOWMAN/EASTON
REVISION: 4 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 07/01/85

DESCRIPTION:
RESERVE BUFFERS FOR DELAYED DATA; MOVE DELAYED DATA TO BUFFERS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.1 NAME: ACQUIRED DELAYED PAYLOAD DATA

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	Y	E	SS P/L	D	1.000	500.000
O	N	D	DELAYDAT	D	1.000	536.000
I	Y	E	OMVOTVIF	D	1.000	16.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.2 NAME: PRIORITIZE DELAYED DATA
PREPARED BY: T.J. SMITH REVISED BY: BOWMAN/EASTON
REVISION: 3 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 07/01/85

DESCRIPTION:

CONTROL DELAYED TELEMETRY BUFFER BUILDING BY PRIORITIZING UNFORMATTED
DELAYED DATA; COORDINATE BULK TELEMETRY SERVICE REQUESTS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.2 NAME: PRIORITIZE DELAYED DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	1.2.4	D	1000.000	0.100
I	Y	D	PRIORITY	D	86000.000	0.050
I	Y	D	DELAYDAT	D	1.000	0.050

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.3 NAME: MONITOR DELAYED DATA
PREPARED BY: T.J. SMITH REVISED BY: BOWMAN/EASTON
REVISION: 3 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 07/01/85

DESCRIPTION:

MONITOR DELAYED DATA TO BE TRANSMITTED; SCHEDULE DISPATCHING OF DATA;
RECORD DATA TRANSMISSIONS; MONITOR LINK AVAILABILITY; CONTROL
COMMUNICATION LINK CHANNELS; INHIBIT DATA ACQUISITION FOR FULL
BUFFERS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

GRSS 7.1.1 CUSTOMER DATA TRACKING

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.3 NAME: MONITOR DELAYED DATA

SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT		
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
I	Y	F	4.2.5.7	D	60.000	0.100
O	Y	F	1.2.4	D	60.000	0.100
O	Y	D	DATAACCT	D	60.000	0.200
I	Y	D	DELAYDAT	D	1000.000	0.200
O	Y	F	4.2.5.7	D	60.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.4 NAME: DISPATCH DELAYED DATA
PREPARED BY: T.J. SMITH REVISED BY: BOWMAN/EASTON
REVISION: 4 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 07/01/85

DESCRIPTION:
CONTROL TRANSMISSION OF DELAYED DATA TO COMMUNICATION PROCESSOR.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.4 NAME: DISPATCH DELAYED DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	DELAYDAT	C	1.000	536.000
O	Y	F	1.3.1	C	1.000	536.000
O	N	F	1.3.2	C	1.000	536.000
I	Y	F	1.2.3	D	60.000	0.100
I	Y	F	1.2.2	D	1000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.5 NAME: FORMAT DELAYED DATA
PREPARED BY: T.J. SMITH REVISED BY: BOWMAN/EASTON
REVISION: 3 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 07/01/85

DESCRIPTION:
BUILD DELAYED DATA TELEMETRY BUFFERS; PRIORITIZE MULTIPLE DATA
SOURCES; SIGNAL DISPATCH FUNCTION WHEN DELAYED DATA BUFFERS
ASSEMBLED.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.5 NAME: FORMAT DELAYED DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	DELAYDAT	D	1.000	536.000
I	N	D	DELAYDAT	D	1.000	536.000
I	Y	D	P/L STAT	D	1.000	10.000
I	Y	D	CORESTAT	D	1.000	20.000
I	Y	D	DATAACCT	D	1.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.1 NAME: PRE-PROCESSING

PREPARED BY: T. CHIANG

REVISED BY: BOWMAN/EASTON

REVISION: 3

REVISION DATE: 06/21/85

FUNCTION TYPE: D

PROGRAM PHASE: I, G

ENTERED DATE: 07/01/85

DESCRIPTION:

PERFORM RF/BASE BAND, PROTOCOL CONVERSION, DEMULTIPLEXING, FRAME SYNCHRONIZATION, SEPARATE VOICE AND VIDEO.

FUNCTION SOURCES: CRSS SEC. 3

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

LEVEL 0 PROCESSING MAY OR MAY NOT BE PERFORMED AS PART OF DATA DISTRIBUTION FUNCTION 1.3. IF NOT PERFORMED IN 1.3 THIS WILL BE PERFORMED IN FUNCTION 1.4. CERTAIN RF FUNCTION & SOME LEVEL OF DEMULTIPLEXING & ERROR CHECKING ARE INCLUDED IN SSIS.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.1 NAME: PRE-PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	1.3.4	C	0.100	7.000
I	Y	F	1.3.2	D	33.000	4.000
O	N	D	DATAACCT	D	0.100	0.020
I	Y	F	1.2.4	C	1.000	536.000
I	Y	F	1.1.4P	C	0.100	3.000
I	Y	F	1.1.4	C	0.100	4.000

C - 3

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.2 NAME: DATA CAPTURE

PREPARED BY: T. CHIANG

REVISION: 5

FUNCTION TYPE: D

REVISED BY: BOWMAN/EASTON

REVISION DATE: 06/21/85

PROGRAM PHASE: I,G

ENTERED DATE: 07/01/85

DESCRIPTION:

PROVIDES SHORT TERM DATA CAPTURE FROM THE SS; BUFFERS DATA IN EVENT OF LINK UNAVAILABILITY; RETRANSMITS RAW DATA UPON REQUEST; PROVIDES ACCOUNTING FOR ALL CAPTURED DATA.

FUNCTION SOURCES: CRSS SEC 3

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

CRSS 7.1.1 CUSTOMER DATA TRACKING

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.2 NAME: DATA CAPTURE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	F	1.1.4	C	0.100	7.000
I	N	D	CAP DATA	D	0.100	7.000
O	Y	F	1.3.1	D	33.000	4.000
O	Y	D	DATAACCT	D	0.140	1.000
I	N	F	1.2.4	C	1.000	536.000
O	N	D	CAP DATA	D	0.100	7.000
I	N	F	1.2.4P	C	1.000	350.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.3 NAME: ROUTING AND TRANSMISSION
 PREPARED BY: T. CHIANG REVISED BY: BOWMAN/EASTON
 REVISION: 4 REVISION DATE: 06/21/85
 FUNCTION TYPE: D PROGRAM PHASE: I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:

PROVIDES FOR TRANSMISSION, ROUTING & ACCOUNTING OF VOICE, VIDEO &
 DIGITAL DATA TO/FROM OPERATING FACILITIES, CUSTOMERS, AND CREW'S
 FAMILIES AND FRIENDS.

FUNCTION SOURCES: CRSS SEC 3 2

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.3 NAME: ROUTING AND TRANSMISSION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.5.1	D	0.330	0.050
I	Y	F	1.5.1P	D	16.000	0.050
O	Y	F	1.5.1P	C	0.128	1.000
O	N	D	DATAACCT	D	0.140	1.000
O	Y	F	1.4.1	C	0.032	1.000
I	Y	F	1.4.1	D	0.330	0.050
O	Y	F	1.5.1	C	0.032	1.000
I	Y	D	PREPROC	C	0.032	2.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.4 NAME: QUALITY VERIFICATION
PREPARED BY: T. CHIANG REVISED BY: BOWMAN
REVISION: 0 REVISION DATE: 04/10/85
FUNCTION TYPE: D PROGRAM PHASE:
ENTERED DATE: 04/24/85

DESCRIPTION:

PROVIDES ERROR CHECKING & FLAGGING. (SUCH AS REED SOLOMAN CHECK)
PROVIDES STATUS REPORT TO DATA HANDLING CENTER MANAGEMENT & ACCOUNT-
ING OF DATA QUALITY STATUS.

FUNCTION SOURCES: CRSS SEC 3

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.3.4 NAME: QUALITY VERIFICATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	5.2.1	D	0.140	1.000
O	Y	D	PREPROC	C	0.100	7.000
I	Y	F	1.3.1	C	0.100	7.000
O	Y	D	DATAACCT	D	0.140	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.1 NAME: CUSTOMER DATA INTERFACE MGT
PREPARED BY: T. CHIANG REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/01/85

DESCRIPTION:
PROVIDES STD INTERFACES AT ISO/OSI LEVELS 1-3, INCLUDING
MESSAGE/PACKET CONVERSION, PERFORMS ERROR CONTROL QUALITY
CHECKING, ACCESS CONTROL, HANDLES DATA, VOICE, VIDEO

FUNCTION SOURCES: CRSS SEC 2

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.1 NAME: CUSTOMER DATA INTERFACE MGT

		SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
I	Y	F	1.3.3	C	0.032	1.000
O	Y	F	1.4.2	C	0.001	13.000
O	Y	F	1.3.3	D	0.330	0.050

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.2 NAME: CUSTOMER DATA CAPTURE
PREPARED BY: T. CHIANG REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/01/85

DESCRIPTION:
PROVIDES ROUTINE CAPTURE OF CUSTOMER RAW DATA, PROVIDES SHORT
TERM DATA STORAGE AND RETRANSMISSION CAPABILITY

FUNCTION SOURCES: CRSS SEC 3

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 7.1.1 CUSTOMER DATA TRACKING

ADDITIONAL REQUIREMENTS:
BASED ON 1 HOUR STORAGE

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.2 NAME: CUSTOMER DATA CAPTURE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	1.4.3	D	0.030	1.300
O	N	D	CAP DATA	C	0.001	13.000
O	Y	F	1.4.5	D	0.001	12.000
I	Y	D	CAP DATA	D	0.030	1.300
I	Y	F	1.4.1	C	0.001	13.000
O	Y	D	DATAACCT	D	0.140	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.3 NAME: CUSTOMER DATA HANDLING
PREPARED BY: T. CHIANG REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/01/85

DESCRIPTION:

SEPARATES CUSTOMER DATA BY CUSTOMER ID; ROUTING RAW DATA TO GO
THROUGH OR BYPASS LEVEL 0 PROCESSING BASED ON CUSTOMER REQUEST

FUNCTION SOURCES: CRSS SEC 3

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 3.4.1.2 MAINT SHORT TERM (1 WEEK) CUST DATA ARCH TO ENSURE DATA
DEL.
CRSS 3.4.1.8 ENSURE ARCHIVE DATA CATALOG INTEGRITY
CRSS 3.4.2 PROVIDE ONLINE CUSTOMER DATA STORAGE FOR 12 HOURS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.3 NAME: CUSTOMER DATA HANDLING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.4.2	D	0.030	1.300
O	Y	F	1.4.7	C	0.001	12.000
I	Y	D	TEMPSTOR	D	0.030	1.300
O	Y	D	TEMPSTOR	D	0.030	1.300
I	Y	F	1.4.5	D	0.001	12.000
I	Y	F	1.4.4	D	0.031	1.000
O	N	E	SSISSCDP	D	0.001	12.000
O	Y	D	DATAACGT	D	1.000	0.100
O	Y	E	CUSTOMER	D	0.030	1.300

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.4 NAME: ANCILLARY DATA ACQUISITION
PREPARED BY: T. CHIANG REVISED BY: BOWMAN/EASTON
REVISION: 0 REVISION DATE: 06/21/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/01/85

DESCRIPTION:
ACCEPTS DATA FROM SPACE STATION, OTV AND OMV CORE; AND
TRANSMITS TO THE CUSTOMER

FUNCTION SOURCES: CRSS SEC 4

CRITICALITY - RECOVERY TIME: 4 IMPACT: 6

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS 7.4.2		PROVIDE SS OPERATIONS REPORT ACCESS
CRSS 4.2.1.2		CUST ACCESS TO TMIS AND SSDS DATA BASE SHALL BE USER FRIEND
CRSS 4.2.1.3.1		TMIS, SSDS DATA BASE ACCESS VIA STD COMMERCIAL DATA RATES
CRSS 4.2.1.3		TMIS, SSDS DATA BASE ACCESS BY DIAL UP LINE
CRSS 4.1.1.1		PROVIDE ANCILLARY DATA TO CUSTOMER EQUIPMENT
CRSS 4.1.1		PROVIDE ENGINEERING AND OPERATIONS DATA
CRSS 7.3.4		ANNUNCIATE &/OR AUTO RESTRICT DISCREPANT RESOURCE USE
CRSS 4.2.1		ACCESS TO SS PROG ENG OPER'S, ADMIN AND DESCRIPTIVE INFORM
CRSS 4.1.6		PROVIDE TIME TAGGED ANCILLARY DATA SETS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.4 NAME: ANCILLARY DATA ACQUISITION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	S/T ARCH	D	0.064	1.000
I	Y	D	ENGRDATA	D	0.064	1.000
O	Y	F	1.4.3	D	0.032	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.5 NAME: LEVEL 0 PROCESSING
PREPARED BY: T. CHIANG REVISED BY: BOWMAN/EASTON
REVISION: 1 REVISION DATE: 06/21/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/01/85

DESCRIPTION:

PROVIDES LEVEL 0 AND OPTIONAL LEVEL 1A PROCESSING; INCLUDING STRIP HEADERS AND TRAILERS, FRAME SYNCHRONIZATION, & IF NECESSARY, TIME REVERSAL; DEMULTIPLEX & SORT DATA SETS; REMOVE REDUNDANT DATA; FILL DATA GAPS FOR LEVEL 0 & REVERSIBLY CALIB. FOR LEVEL 1A PROCESSING

FUNCTION SOURCES: CRSS SEC 3.2/3.5

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS	3.1.5	PROVIDE LEVEL 0 DATA WITHIN TBD HOURS
CRSS	5.4.3	CUST DATA DELIVERED W/O ALTERING CONTENTS
CRSS	3.2.3	PROVIDE LEVEL 0 DATA QUICK LOOK CAPABILITY AS STD. SERVICE
CRSS	3.3.3	SUPPORT ROUTINE CUSTOMER ANALYSES
CRSS	3.1.1	HANDLE RAW CUST DATA, ROUTINELY PROCESS TO LEVEL 0
CRSS	3.2.1	PERFORM LEVEL 0 PROCESSING FUNCTIONS AS NECESSARY

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.5 NAME: LEVEL 0 PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.4.2	D	0.001	12.000
O	Y	F	1.4.3	D	0.001	12.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.6 NAME: CUSTOMER DATA ACCOUNTING
 PREPARED BY: T. CHIANG REVISED BY: BOWMAN/EASTON
 REVISION: 2 REVISION DATE: 06/21/85
 FUNCTION TYPE: D PROGRAM PHASE: I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:

PROVIDES ACCOUNTING FOR CUSTOMER DATA VOICE & VIDEO DELIVERY.
 HANDLES CUSTOMER REQUEST FOR A DATA SEARCH/RETRIEVE FOR 12 HOURS
 ONLINE STORAGE, ONE REEL OFFLINE ARCHIVE & ANCILLARY DATA ARCHIVE

FUNCTION SOURCES: CRSS SEC 3

CRITICALITY - RECOVERY TIME: 3

IMPACT: 6

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
 REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

CRSS 3.2.2	PROVIDE CUSTOMER DATA ACCOUNTABILITY
CRSS 3.4.1.6	PROVIDE INVENTORIES OF LEVEL 0 AND 1A DATA
CRSS 3.4.1.5	SHORT TERM CUSTOMER DATA ARCHIVE CATALOG
CRSS 4.2.1	MAINTAIN CUSTOMER DATA PRODUCTS CATALOG
CRSS 3.4.1.7	LOG DATA TRANSFERS AND ACCESS INFORMATION
CRSS 7.1.1	CUSTOMER DATA TRACKING
CRSS 3.4.4	PROVIDE ARCHIVED DATA IN STD FORMATS
CRSS 3.4.1.9	PROVIDE ARCHIVE FILE CATALOG, INDEX & CUST CONTROLS
CRSS 3.4.3	PROVIDE ARCHIVED DATA TO CUST, TIMES TO BE NEGOTIATED

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.6 NAME: CUSTOMER DATA ACCOUNTING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	CUSTOMER	D	3.400	1.000
I	Y	D	DATAACCT	D	0.146	1.000
O	Y	D	TEMPSTOR	D	3000.000	0.100
I	Y	E	CUSTOMER	D	1000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.7 NAME: ROUTING AND TRANSMISSION
PREPARED BY: T. CHIANG REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/01/85

DESCRIPTION:

PROVIDES TRANSMISSION, ROUTING & ACCOUNTING OF CUST, CORE, PAYLOAD
VOICE/VIDEO & ANCIL DATA. PROVIDES ON-LINE STORAGE OF CUST DATA FOR
12 HOURS & OFFLINE ARCHIVE OF UP TO 1 WEEK PENDING VERIF. OF RECEIPT.
SUPPORTS REQ FOR RETRANSMISSION OF CAPTURED DATA

FUNCTION SOURCES: CRSS SEC 3.4.5

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.4.7 NAME: ROUTING AND TRANSMISSION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.4.3	C	0.001	12.000
O	Y	E	OFFSCUST	D	0.001	12.000
I	Y	D	TEMPSTOR	D	1000.000	1.000
O	Y	D	DATAACCT	D	0.146	1.000

23-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.1 NAME: CORE DATA INTERFACE MANAGEMENT
PREPARED BY: FACC/LANDI REVISED BY: LANDI
REVISION: 3 REVISION DATE: 07/09/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/10/85

DESCRIPTION:

PROVIDES STANDARD INTERFACES AT ISO/OSI LEVELS 1-3, INCLUDING
MESSAGE/PACKET CONVERSION; PERFORMS ERROR CONTROL, QUALITY CHECKING,
ACCESS CONTROL; HANDLES DATA, VOICE, VIDEO.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION
.....

ADDITIONAL REQUIREMENTS: (none)

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.3.3	C	0.032	1.000
O	Y	F	1.3.3	D	0.330	0.050
O	Y	F	1.5.2	C	0.032	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.2 NAME: CORE DATA CAPTURE
PREPARED BY: FACC/LANDI REVISED BY: LANDI
REVISION: 4 REVISION DATE: 07/09/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/10/85

DESCRIPTION:
PROVIDES ROUTINE CAPTURE OF OPERATOR DATA; PERFORMS ORDER REVERSAL AS
NECESSARY.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.2 NAME: CORE DATA CAPTURE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.5.1	C	0.032	1.000
O	N	D	DATAACGT	C	1.000	0.050
O	N	D	COREBUFF	C	0.032	1.000
O	Y	F	1.5.3	C	0.032	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.3 NAME: DATA EXTRACTION
PREPARED BY: FACC REVISED BY: LANDI
REVISION: 3 REVISION DATE: 07/09/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/10/85

DESCRIPTION:
EXTRACTS OPERATOR SOURCE DATA FROM PACKETS FOR LOCAL (FACILITY)
DISTRIBUTION.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 3.4.1.4 ARCHIVE ENGR./ANC DATA FOR AT LEAST TWO YEARS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.3 NAME: DATA EXTRACTION

		SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.5.2	C	0.032	1.000
I	Y	D	COREBUFF	D	0.032	1.000
O	N	D	DATAACCT	C	1.000	0.050
O	N	D	ENGRDATA	C	0.032	1.000
O	N	D	S/T ARCH	C	0.032	1.000
O	N	F	1.5.4	C	0.032	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.4 NAME: DISPLAYS AND CONTROLS
PREPARED BY: FACC/LANDI REVISED BY: LANDI
REVISION: 5 REVISION DATE: 07/09/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/10/85

DESCRIPTION:
PROVIDES THE MAN/MACHINE INTERFACE FOR MONITORING OF CORE DATA,
HANDLING OF VOICE AND VIDEO DATA. AND RESPONDING TO OPERATOR
REQUESTS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:
SUPPORT A USER-FRIENDLY LANGUAGE (COMMON TO VARIOUS SSPE'S)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.4 NAME: DISPLAYS AND CONTROLS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	F	1.5.3	C	0.032	1.000
O	N	E	OPERATOR	C	1.000	8.000
I	Y	E	OPERATOR	D	100.000	0.050
I	Y	D	S/T ARCH	D	100.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.5 NAME: ENGINEERING DATA ANALYSIS
PREPARED BY: FACC REVISED BY: LANDI
REVISION: 2 REVISION DATE: 07/09/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/10/85

DESCRIPTION:
PERFORMS LONG-TERM TREND/PERFORMANCE ANALYSIS OF ARCHIVED CORE
ENGINEERING DATA.

FUNCTION SOURCES: CRSS 3.4.1.4

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 3.4.1.4 ARCHIVE ENGR./ANC DATA FOR AT LEAST TWO YEARS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.5 NAME: ENGINEERING DATA ANALYSIS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	ENGRDATA	D	0.320	0.100
I	N	D	ENGRDATA	D	0.320	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.6 NAME: CORE DATA ACCOUNTING
PREPARED BY: FACC/LANDI REVISED BY: LANDI
REVISION: 4 REVISION DATE: 07/09/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/10/85

DESCRIPTION:

MAINTAINS ACCOUNTS OF AND MANAGES THE TRANSFERS OF CORE DATA TO THE
ENGINEERING DATA CENTER; SUPPORTS THE RETRIEVAL OF CORE DATA FROM
LOCAL AND ARCHIVAL DATA STORAGE UPON OPERATOR REQUEST.

FUNCTION SOURCES: CRSS 3.4.1.4 RFP C-4-2.2.5.3.E

CRITICALITY - RECOVERY TIME: 4 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

CAPABILITY TO EXTRACT AT LEAST TWO TYPES OF DATA SET SELECTORS AND
PRESENT DATA IN ESTABLISHED FORMATS: 1) PLAYBACK OF ALL TELEMETRY
DATA OVER A SELECTED TIME PERIOD; 2) EXTRACTION OF A SELECTED SUBSET
OF PARAMETERS OVER A SELECTED TIME PERIOD.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.6 NAME: CORE DATA ACCOUNTING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	OPERATOR	D	100.000	0.100
I	N	D	ENGRDATA	D	100.000	1.000
I	N	D	DATAACCT	C	1.000	0.050
O	N	E	OPERATOR	D	100.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.1
 PREPARED BY: T. CHIANG
 REVISION: 5
 FUNCTION TYPE: U

NAME: VALIDATE PAYLOAD COMMANDS DATA
 REVISED BY: BOWMAN/EASTON
 REVISION DATE: 06/21/85
 PROGRAM PHASE: I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:

CHECKS TO SEE THAT CUSTOMER IS AUTHORIZED TO THE SPECIFIED ADDRESS
 AND DURING THE SPECIFIED TIME PROVIDES ACCOUNTING FOR ALL CUSTOMER
 PAYLOAD UPLINKED COMMANDS/DATA.

FUNCTION SOURCES: CRSS SEC 6

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
 REQUIREMENTS: NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

DOC PARAGRAPH NO.	DESCRIPTION
CRSS 2.1.1	DEFINE CUST INTERFACE STANDARDS PER ISO/OSI
CRSS 6.1.5	SUPPORT CUST P/L INTERACTION BY REMOTE TERMINALS
CRSS 5.4.1	PROVIDE DIGITAL DATA COMM AMONG ELEMENTS
CRSS 6.1.4	CHECK CUSTOMER ID TO INSURE AUTHORIZATION
CRSS 6.1.2	SUPP P/L COMMAND GENERATION FROM CUST FOR GND CTL CTR, SS
CRSS 2.1.2	USE EXISTING STDS FOR FIRST 3 OSI LAYERS
CRSS 2.2.1	OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES
CRSS 5.2.8	DESIGN VIDEO DIST ACCESS TO UNAUTHORIZED CUSTOMERS
MRWG TDMX2020(52)	COMMAND ENTRY
RFP C-4-2.2.6.2.1	SECURE COMMUNICATION LINKS: COMMAND AUTHENTICATION
CRSS 6.1.5.2.4	PERMIT CUST TO GENERATE CONTROLS FROM WORKSTATION
CRSS 3.2.2	PROVIDE CUSTOMER DATA ACCOUNTABILITY
CRSS 2.1.1.1	USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY
CRSS 2.1.2.1	USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL
CRSS 6.1.5.1	WORK STATIONS GENERATE CMMDS, ALLOWS SSIS COMM
CRSS 5.4.4	PROVIDE STD INTERFACE TO CUST ENCRYPT/DECRYPT EQPT
CRSS 2.2.3	PACKETIZE SSIS/SCS TO CUST COMPUTER INTERCHANGE

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.1

NAME: VALIDATE PAYLOAD COMMANDS DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	OTV STAT	D	100.000	1.000
O	Y	F	2.2	D	12.300	1.000
I	Y	D	AUTHENT	D	25.300	1.000
O	Y	D	CMMD LOG	D	14.600	1.000
I	Y	E	CUSTOMER	D	2.500	1.000
O	N	D	PROCEDUR	D	10000.000	20.000
O	Y	E	SS P/L	D	40.000	1.000
O	Y	E	CUSTOMER	D	40.900	1.000
O	Y	E	OMVOTVIF	D	3.100	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.2 NAME: CHECK SSDS SERVICE REQUIREMENTS
 PREPARED BY: T. CHIANG REVISED BY: BOWMAN/EASTON
 REVISION: 6 REVISION DATE: 06/21/85
 FUNCTION TYPE: U PROGRAM PHASE: I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:

CHECK CUSTOMER COMMANDS TO DETERMINE IF THEY REQUIRE SERVICE FROM THE DATA SYSTEM. TYPICAL SERVICE REQUESTS ARE MODE CHANGE COMMANDS AND OPERATION SCHEDULE REQUESTS.

FUNCTION SOURCES: CRSS SEC 6

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 6.1.6	CHECK FOR COMMAND RESTRICTION
RFP C-2-3.1.3	P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST
CRSS 7.2.6	SUPPORT RAPID REPLANNING FOR OPPORTUNITIES
CRSS 7.3.4.1	LOGICALLY SEPARATE RESTR/CONSTR CMDS FROM GEN UPLINK
CRSS 3.2.2	PROVIDE CUSTOMER DATA ACCOUNTABILITY
CRSS 7.4.1	PROVIDE P/L EVENT HISTORY OPERATIONS REPORT TO CUST
CRSS 7.3.4.1	RETURN DISPOSITION/REASON ON COMMANDS
CRSS 6.1.3.1	RESTRICTED/CONSTRAINED COMMAND INHIBITION, TRANSMISSION
CRSS 6.1.6.3	PASS THROUGH NON-RESTRICTED COMMANDS
CRSS 6.1.7	PERMIT INDEPENDENT NON-RESTR CUST OPS, MAINT. CTL, SAFETY
MRWG TDMX2020(52)	COMMAND ENTRY
RFP C-2-3.1.3	PAYLOAD OPERATION CONSTRAINTS LIMITED TO SAFETY AND COMPATIB
CRSS 7.2.5	PROVIDE RESTRICTED COMMANDS LIST

ADDITIONAL REQUIREMENTS:

PROVIDE COMMAND MANAGEMENT TO PROTECT THE SYSTEM FROM EXECUTING INADVERTENT AND UNAUTHORIZED (AND RESTRICTED) PAYLOAD COMMANDS THAT MAY AFFECT CREW SAFETY AND/OR DAMAGE THE STATION.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.2 NAME: CHECK SSDS SERVICE REQUIREMENTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	2.5.4.4	D	10.000	1.000
O	Y	F	2.5.3.4	D	120.000	5.000
O	Y	F	2.5.4.5	D	120.000	5.000
O	Y	E	SS P/L	D	12.400	1.000
I	Y	F	2.1	D	12.300	1.000
O	Y	F	3.3.2	D	100.000	1.000
O	Y	F	2.5.2	D	20.000	0.200
O	Y	E	OMVOTVIF	D	24.200	1.000
O	Y	D	CMMD LOG	D	14.600	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.1 NAME: AUTHORIZE OPERATOR
PREPARED BY: KILLINGBECK REVISED BY: P. J. BOWMAN
REVISION: 1 REVISION DATE: 04/25/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 04/25/85

DESCRIPTION:

OBTAIN OPERATOR ID. VALIDATE OPERATOR ID VERSUS AUTHENTICATION DATA
BASE. SIGNAL DISPOSITION TO OPERATOR (ACCEPTED OR REJECTED). GET SET
OF AUTHORIZED OPERATIONS FOR THIS OPERATOR FROM AUTHENTICATION
DATA BASE AND PROVIDE TO 2.3.2.

FUNCTION SOURCES: C-4-2.2.5.3.K C-4-7.3.4.1

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.1 NAME: AUTHORIZE OPERATOR

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	OPERATOR	D	10000.000	1.000
O	Y	F	2.3.2	D	10000.000	1.000
I	N	D	AUTHENT	D	10000.000	1.000
I	Y	E	OPERATOR	D	10000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.2 NAME: AUTHORIZE OPERATION
 PREPARED BY: KILLINGBECK REVISED BY: BOWMAN/EASTON
 REVISION: 3 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:

OBTAIN CORE CMMD OR DATA FROM OPERATOR. VALIDATE OPERATION VS. LIST OF
 AUTHORIZED OPERATIONS FROM 2.3.1, & VS. SYS OPERATING MODE. GENERATE
 CMMD LOG. PROVIDE VALIDATED OPERATION TO 3.3 (SCHED) &/OR 4.0
 (OPERATE CORE SYSTEM). SIGNAL DISPOSITION TO OPERATOR.

FUNCTION SOURCES: C-4-2.2.5.3.K C-4-7.3.4.1

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.2 NAME: AUTHORIZE OPERATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	3.3.2	D	10000.000	1.000
O	N	D	CMMD LOG	D	10000.000	1.000
O	Y	F	4.0	D	10000.000	1.000
O	Y	F	5.1.3.2	D	100000.000	0.100
O	N	D	PROCEDUR	D	100000.000	20.000
I	Y	E	OPERATOR	D	10000.000	1.000
I	Y	F	2.3.1	D	10000.000	1.000
O	N	E	OPERATOR	D	10000.000	1.000
I	N	D	CORESTAT	D	10000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.4 NAME: PROVIDE ANCILLARY DATA
 PREPARED BY: KILLINGBECK REVISED BY: P.J. BOWMAN
 REVISION: 2 REVISION DATE: 05/08/85
 FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
 ENTERED DATE: 05/08/85

DESCRIPTION:

ACCEPT REQUEST FOR ANCILLARY DATA FROM PAYLOAD, CUSTOMER SYSTEM, OMV,
 OTV, OR CONSTELLATION INTERFACE. RETRIEVE REQUESTED DATA FROM CORE
 STATUS DATA STORE. GIVE RETRIEVED DATA TO ORIGINAL REQUESTOR.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS	4.1.3	PROVIDE ORBIT POSITION, TBD M ACCURACY
CRSS	4.1.2	PROVIDE TIME REFERENCE, 1 mSEC ACCURACY
RFP	C-4-2.2.5.3.B	PROVIDE HOUSEKEEPING DATA TO CUST.
CRSS	4.1.6	PROVIDE TIME TAGGED ANCILLARY DATA SETS
CRSS	4.1.1.1	PROVIDE ANCILLARY DATA TO CUSTOMER EQUIPMENT
RFP	C-4-2.1.3.3	INTERNAL/EXTERNAL CONTAMINATION MONITOR
RFP	C-4-2.2.7.1.T	PROVIDE NAV DATA TO PAYLOAD
CRSS	4.1.5	PERMIT CUST TO USE OWN, IMPROVED PERFORMANCE DATA
RFP	C-4-2.2.7.1.C	PROVIDE STATE VECTOR AND TM TO SUPPORT CUSTOMER
CRSS	2.2.3.1	PROVIDE PACKETIZED ANCILLARY DATA TO PAYLOADS
CRSS	4.1.4	PROVIDE ATTITUDE, TBD DEG. ACCURACY
RFP	C-3-3.1.I	BASIC ANCILLARY DATA PROVIDED
RFP	C-4-2.2.7.1.B	PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.4 NAME: PROVIDE ANCILLARY DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	CORESTAT	C	0.050	1.000
O	N	F	2.5.1	D	15.000	1.000
O	N	E	SS P/L	C	0.100	0.100
O	N	E	OMVOTVIF	C	0.200	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.1 NAME: CUSTOMER DATA PROCESSING
 PREPARED BY: C.R. EASTON REVISED BY: C.R. EASTON
 REVISION: 0 REVISION DATE: 02/22/85
 FUNCTION TYPE: U PROGRAM PHASE: I,G,B7
 ENTERED DATE: 04/09/85

DESCRIPTION:
 PROVIDES DATA PROCESSING SUPPORT FOR CUSTOMER PAYLOADS AS AN OPTION
 FOR THE CUSTOMERS. CUSTOMERS MUST SUPPLY THE SOFTWARE, AND THE SSDS
 PROVIDES THE ONBOARD PROCESSOR SUPPORT.

FUNCTION SOURCES: RFP C-2-3.1.3, CRSS 7.1.3,
 CRSS 3.3.5

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 4
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS 7.1.3		PAYLOAD HOUSEKEEPING DATA MONITOR
CRSS 3.3.5		PROVIDE TBD CUST ONBOARD MASS STORAGE
MRWG COMM1206(46)		CUSTOMER DATA PROCESSING
RFP C-2-3.1.3		CUST. DATA MGMT. SERVICES

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.1 NAME: CUSTOMER DATA PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	P/L STAT	D	15.000	1.000
I	Y	E	CONSTI/F	D	60.000	75.000
I	N	F	2.4	D	15.000	1.000
I	N	D	P/L STAT	D	15.000	1.000
I	N	D	CORESTAT	D	15.000	5.000
O	N	E	CUST/OPR	D	15.000	1.000
I	Y	E	SS P/L	D	20.000	500.000
O	Y	E	CONSTI/F	D	60.000	10.000
O	Y	F	2.5.2	D	15.000	5.000
O	Y	E	SS P/L	D	20.000	50.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.2 NAME: CUSTOMER PAYLOAD OPERATION
 PREPARED BY: C.R. EASTON REVISED BY: C.R. EASTON
 REVISION: 0 REVISION DATE: 02/22/85
 FUNCTION TYPE: U PROGRAM PHASE: I,G,B7
 ENTERED DATE: 04/24/85

DESCRIPTION:

PROVIDES PAYLOAD OPERATION SUPPORT FOR CUSTOMER PAYLOADS AS AN
 OPTIONAL SERVICE. PROVIDES STORAGE FOR COMMAND SEQUENCES AND
 OPERATION COMMANDS ON SCHEDULE OR ON CONDITION.

FUNCTION SOURCES: RFP C-3-3.1.G CRSS 6.3.1.1
 CRSS 6.3.2

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-3-3.1.G	INDEPENDENT CUST OPERATION AND MONITOR
MRWG	COMM1117(37)	PAYLOAD ACTIVATION/SAFING
RFP	C-2-3.1.3	INDEPENDENT CUST. OPERATION & MONITOR OF PAYLOAD
MRWG	SAAO305(32)	CUSTOMER PROCESS CONTROL
CRSS	7.1.3	PAYLOAD HOUSEKEEPING DATA MONITOR
CRSS	7.2.6	SUPPORT RAPID REPLANNING FOR OPPORTUNITIES
CRSS	6.3.1.1	ACTIVATE STORED COMMAND SEQUENCES
CRSS	6.3.2	STORED PAYLOAD COMMAND ACTIVATED BY ANOTHER STORED COMMAND
RFP	C-2-3.1.3	P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.2 NAME: CUSTOMER PAYLOAD OPERATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	P/L STAT	D	15.000	1.000
I	Y	F	2.2	D	20.000	0.200
O	Y	E	SS P/L	D	20.000	0.200
I	Y	F	3.4.1	D	60.000	0.200
O	Y	E	CONSTI/F	D	60.000	0.200
I	Y	F	2.5.1	D	15.000	5.000
I	N	D	CORESTAT	D	15.000	5.000
I	N	D	CUSTCMDS	D	15.000	0.200

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.1 NAME: OTV SERVICE
PREPARED BY: C.R. EASTON
REVISION: 0
FUNCTION TYPE: C

REVISED BY:
REVISION DATE: 03/01/85
PROGRAM PHASE: G
ENTERED DATE: 04/24/85

DESCRIPTION:
SUPPORTS OTV SERVICING OPERATIONS SUCH AS REFUELING,
RECHARGING, REFURBISHING AND MAINTENANCE

FUNCTION SOURCES: RFP C-2-3.1.7 C-4-1.2
C-4-3.3.1a

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-3.3.1a	SERVICE OTV
RFP	C-3-3.2.C	OMV/PLATFORM/OTV MAINTENANCE & SERVICING
MRWG	COMM1309(11)	OTV SERVICING
RFP	C-2-3.1.7	OTV SERVICING
RFP	C-4-2.1.2.4	FACILITATE SCHED/UNSCHED SERVICING OF SSPE'S
RFP	C-4-2.1.2.4.A	SERVICE AND DEPLOY OTV
RFP	C-4-1.2	PROVIDE CAPABILITY TO SERVICE OTV-GROWTH

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.1 NAME: OTV SERVICE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	CHARGER	C	60.000	0.100
O	Y	E	FUEL DEP	C	60.000	0.100
I	Y	E	OTV BERTH	C	60.000	0.010
O	Y	F	2.5.3.2	C	60.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.2 NAME: OTV CHECKOUT & DIAGNOSTICS
PREPARED BY: C.R. EASTON REVISED BY:
REVISION: 0 REVISION DATE: 03/01/85
FUNCTION TYPE: C PROGRAM PHASE: G
ENTERED DATE: 04/24/85

DESCRIPTION:

PERFORMS DIAGNOSTIC ROUTINES ON OTV TO DETERMINE STATUS & ANY
MAINTENANCE ACTIONS THAT MAY BE REQUIRED.

FUNCTION SOURCES: TDMX 2574 RRFP C-4-3.3.1a
RFP C-2-3.1.7 COMM 1309

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 4
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-3-3.2.C	OMV/PLATFORM/OTV MAINTENANCE & SERVICING
RFP	C-4-3.3.1a	SERVICE OTV
RFP	C-2-3.1.7	OTV SERVICING
MRWG	TDMX2570(11)	ROTV CHECKOUT/DIAGNOSTICS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.2 NAME: OTV CHECKOUT & DIAGNOSTICS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	OTV STAT	D	600.000	0.100
I	Y	E	OTV BERTH	C	60.000	2.000
O	N	D	MAINTLOG	D	1200.000	0.100
I	Y	F	2.5.3.1	C	60.000	0.100
O	N	E	EVA CREW	D	600.000	2.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.3 NAME: OTV DEPLOYMENT/RETRIEVAL

PREPARED BY: C.R. EASTON

REVISED BY: P.J. BOWMAN

REVISION: 1

REVISION DATE: 05/08/85

FUNCTION TYPE: C

PROGRAM PHASE: G

ENTERED DATE: 05/08/85

DESCRIPTION:

SUPPORT OTV DOCKING, BERTHING, SEPARATION, DEPLOYMENT AND RETRIEVAL.
 PROVIDES MANEUVER TARGETING FOR LAUNCH, RETRIEVAL, AND PROXIMITY
 OPERATIONS.

FUNCTION SOURCES: RFP C-4-3.3.4

CRITICALITY - RECOVERY TIME: 2

IMPACT: 3

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 2

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP	C-4-3.3.4	OTV DEPLOYMENT & RETRIEVAL
RFP	C-4-2.1.2.4.A	SERVICE AND DEPLOY OTV
RFP	C-4-2.2.7.1.M	SUPPORT BERTHING, DOCKING, & SEPERATION OPS
MRWG	COMM1010(11)	OTV DEPLOYMENT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.3 NAME: OTV DEPLOYMENT/RETRIEVAL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	OTV I/F	D	1.000	0.100
I	Y	F	4.1.4.3	D	3000000.000	0.100
O	Y	E	OTV I/F	D	1.000	0.100
O	N	D	OTV STAT	C	1.000	0.100
I	Y	D	NAVSTATE	C	60.000	1.000
O	N	E	OPERATOR	C	1.000	0.100
I	Y	D	OBJSTATE	C	2.000	0.200
I	N	D	OTV STAT	D	1.000	0.100
O	Y	E	OTV BERTH	D	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.4 NAME: OTV OPERATION

PREPARED BY: C.R. EASTON

REVISION: 1

FUNCTION TYPE: C

REVISED BY: BOWMAN/EASTON

REVISION DATE: 06/21/85

PROGRAM PHASE: G

ENTERED DATE: 07/03/85

DESCRIPTION:

PROVIDE SPACE STATION BASED COMMAND AND CONTROL OF THE OTV FOR THESE PORTIONS OF ITS MISSION PROFILE UNDER SPACE STATION CONTROL. MAINTAIN TRANSPARENT CUSTOMER COMMAND LINK.

FUNCTION SOURCES: RFP C-2-3.1.6

RFP C-2-3.1.3

CRITICALITY - RECOVERY TIME: 2

IMPACT: 3

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-2-3.1.6 REMOTE SERVICING OF P/L'S, SAT'S, & PLATFORMS VIA OMV & OTV

RFP C-4-2.1.2.4.B REMOTE PAYLOAD/SAT. SERVICING IN GEOSYNC ORBIT VIA OTV

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.4 NAME: OTV OPERATION

TYPE	TRIGGER	SOURCE/DESTINATION TYPE CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	Y	F 2.2	D	120.000	5.000
O	Y	E OTV I/F	D	60.000	5.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.5 NAME: OTV STATUS

PREPARED BY: C.R. EASTON

REVISION: 0

FUNCTION TYPE: U

REVISED BY:

REVISION DATE: 03/01/85

PROGRAM PHASE: G

ENTERED DATE: 04/24/85

DESCRIPTION:

PROVIDES OTV AND OTV PAYLOAD STATUS REPORTS TO REMOTE CUSTOMERS.
MAINTAINS TRANSPARENT TO CUSTOMER COMMUNICATIONS LINK.

FUNCTION SOURCES: RFP C-4-3.3.3

RFP C-2-3.1.3

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 2

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-3.3.3 OTV OPERATIONS CONTROL & SAFETY

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.3.5 NAME: OTV STATUS

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	Y	E	OTV I/F	C	15.000	2.000
O	N	D	OTV STAT	C	15.000	0.100
O	Y	F	1.1.1	C	15.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.1 NAME: OMV SERVICE

PREPARED BY: C.R. EASTON

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 03/04/85

PROGRAM PHASE: I,G,B7

ENTERED DATE: 04/24/85

DESCRIPTION:

SUPPORTS OMV SERVICING OPERATIONS SUCH AS REFUELING,
RECHARGING, REFURBISHMENT, AND MAINTENANCEFUNCTION SOURCES: RFP C-3-2.1c
RFP C-4-1.2fRFP C-4-3.2.1a
MRWG COMM1304

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 2

DOC PARAGRAPH NO. DESCRIPTION

MRWG SAAX0020(49)	OMV RECHARGE
RFP C-3-3.2.C	OMV/PLATFORM/OTV MAINTENANCE & SERVICING
RFP C-4-2.1.2.4	FACILITATE SCHED/UNSCHED SERVICING OF SSPE'S
RFP C-3-2.1.C	OMV SERVICING & MAINTENANCE
MRWG TDMX2120(49)	OMV REFUEL
RFP C-4-1.2.F	PROVIDE CAPABILITY TO SERVICE OMV
RFP C-4-3.2.1.A	OMV SERVICING AT SS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.1 NAME: OMV SERVICE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	FUEL DEP	C	60.000	0.100
O	Y	E	CHARGER	C	60.000	0.100
O	Y	F	2.5.4.2	C	60.000	0.100
I	Y	E	OMVBERTH	C	60.000	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.2 NAME: OMV CHECKOUT & DIAGNOSTICS

PREPARED BY: C.R. EASTON

REVISED BY:

REVISION: 0

REVISION DATE: 03/04/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G,B7

ENTERED DATE: 04/24/85

DESCRIPTION:

PERFORMS DIAGNOSTIC ROUTINES ON OMV TO DETERMINE STATUS AND ANY MAINTENANCE ACTIONS THAT MAY BE REQUIRED

FUNCTION SOURCES: COMM1304
RFP C-3-2.1c

RFP C-4-3.2.1a

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 4

DOC PARAGRAPH NO. DESCRIPTION

RFP C-3-2.1.C	OMV SERVICING & MAINTENANCE
RFP C-4-3.2.1.A	OMV SERVICING AT SS
RFP C-3-3.2.C	OMV/PLATFORM/OTV MAINTENANCE & SERVICING
MRWG COMM1304(49)	OMV CHECKOUT/DIAGNOSTICS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.2 NAME: OMV CHECKOUT & DIAGNOSTICS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	OMV BERTH	C	60.000	2.000
O	N	D	OMV STAT	D	600.000	0.100
O	N	D	MAINTLOG	D	1200.000	0.100
I	Y	F	2.5.4.1	C	60.000	0.100
O	N	E	EVA CREW	D	600.000	2.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.3 NAME: OMV DEPLOYMENT/RETRIEVAL

PREPARED BY: C.R. EASTON

REVISED BY: BOWMAN/EASTON

REVISION: 2

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G,B7

ENTERED DATE: 07/01/85

DESCRIPTION:

SUPPORTS OMV DOCKING BERTHING, SEPARATION, DEPLOYMENT, AND
RETRIEVAL. PROVIDES MANEUVER, TARGETING FOR LAUNCH, RETRIEVAL AND
PROXIMITY OPERATIONS

FUNCTION SOURCES: RFP C-4-3.2.4

CRITICALITY - RECOVERY TIME: 2

IMPACT: 3

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 2

DOC PARAGRAPH NO. DESCRIPTION

MRWG SAAX0013(49) OMV DEPLOYMENT

RFP C-4-2.2.7.1.M SUPPORT BERTHING, DOCKING, & SEPERATION OPS

RFP C-4-3.2.4 OMV DEPLOYMENT/RETRIEVAL

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.3 NAME: OMV DEPLOYMENT/RETRIEVAL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	OMV I/F	D	1.000	0.100
I	N	D	NAVSTATE	C	60.000	1.000
O	Y	E	OMV I/F	D	1.000	0.100
O	N	D	OMV STAT	C	1.000	0.100
I	Y	F	4.1.4.3	D	1000000.000	0.100
I	Y	D	OBJSTATE	C	2.000	0.200
O	N	E	OPERATOR	C	1.000	0.100
I	N	D	OMV STAT	D	1.000	0.100
O	Y	E	OMVBERTH	D	1.000	0.100
I	Y	E	OPERATOR	D	60.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.4 NAME: REMOTE OPERATIONS CONTROL

PREPARED BY: C.R. EASTON

REVISED BY:

REVISION: 0

REVISION DATE: 03/04/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G,B7

ENTERED DATE: 04/24/85

DESCRIPTION:

PROVIDES SPACE STATION BASED, INTERACTIVE CONTROL OF OMV REMOTE OPERATIONS SUCH AS DOCKING WITH COFLIERS, AND REMOVE/REPLACE OPERATIONS.

FUNCTION SOURCES: RFP C-2-3.1.6
RFP C-4-3.4.1

RFP C-4-2.1.2.4b

CRITICALITY - RECOVERY TIME: 1

IMPACT: 3

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 2

DOC PARAGRAPH NO. DESCRIPTION

RFP	C-2-3.1.6	REMOTE SERVICING OF P/L'S, SAT'S, & PLATFORMS VIA OMV & OTV
RFP	C-4-3.4.1	OMV REMOTE SERVICING AT PLATFORM
RFP	C-4-2.1.2.4.B	REMOTE PAYLOAD/SAT. SERVICING IN GEOSYNC ORBIT VIA OTV
RFP	C-4-2.1.2.4.B	REMOTE PAYLOAD/SAT. SERVICE VIA OMV
RFP	C-4-3.2.3	OMV OPS CTRL & SAFETY
MRWG	SAAX0012(40)	OMV REMOTE OPERATIONS CONTROL
RFP	C-2-3.1.6	SERVICING IN GEOSYNC ORBIT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.4 NAME: REMOTE OPERATIONS CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	2.2	D	10.000	1.000
O	Y	E	OPERATOR	D	1.000	0.100
I	Y	E	OPERATOR	D	1.000	1.000
O	Y	E	OMV I/F	D	1.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.5 NAME: OMV OPERATION

PREPARED BY: C.R. EASTON

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 03/04/85

PROGRAM PHASE: I,G,B7

ENTERED DATE: 04/24/85

DESCRIPTION:

PROVIDE SPACE STATION BASED COMMAND AND CONTROL OF THE OMV DURING
MANEUVERS WITHIN THE CONSTELLATION AND RENDEZVOUS. MAINTAIN
TRANSPARENT CUSTOMER DATA LINK.

FUNCTION SOURCES: RFP C-2-3.1.6

CRITICALITY - RECOVERY TIME: 2

IMPACT: 3

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-2-3.1.6 SERVICING IN GEOSYNC ORBIT
RFP C-2-3.1.6 REMOTE SERVICING OF P/L'S, SAT'S, & PLATFORMS VIA OMV &
OTV

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.5 NAME: OMV OPERATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	OMV I/F	D	60.000	5.000
I	Y	F	2.2	D	120.000	5.000
I	Y	F	3.4.2	D	120.000	5.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.6 NAME: OMV STATUS (TO REMOTE CUSTOMER)
PREPARED BY: C.R. EASTON REVISED BY: BOWMAN/EASTON
REVISION: 1 REVISION DATE: 06/21/85
FUNCTION TYPE: U PROGRAM PHASE: I,G,B7
ENTERED DATE: 07/01/85

DESCRIPTION:
PROVIDES OMV AND OMV PAYLOAD STATUS REPORTS TO REMOTE CUSTOMERS.
MAINTAINS TRANSPARENT-TO-CUSTOMER COMMUNICATIONS LINK.

FUNCTION SOURCES: RFP C-4-3.2.3

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.4.6 NAME: OMV STATUS (TO REMOTE CUSTOMER)

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
O	Y	F	1.1.1	C	15.000	0.100
O	N	D	OMV STAT	C	15.000	0.100
I	Y	E	OMV I/F	C	15.000	2.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.5 NAME: CUSTOMER PAYLOAD CHECKOUT/SERVICE
 PREPARED BY: C. R. EASTON REVISED BY: J. DASHIELL
 REVISION: 1 REVISION DATE: 05/01/85
 FUNCTION TYPE: U PROGRAM PHASE: I,G,B5
 ENTERED DATE: 05/08/85

DESCRIPTION:

PROVIDES SUPPORT SOFTWARE, PROCEDURES AND CHECKLISTS TO ASSIST
 THE ONBOARD CREW TO CHECKOUT AND SERVICE CUSTOMER PAYLOADS

FUNCTION SOURCES: RFP C-4-2.1.2.4A RFP C-4-2.2.5.3H
 CRSS 7.3.1 CRSS 7.3.2

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 10
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 7.3.2	DIFFERENTIATE P/L, SSIS FAULTS
RFP C-2-3.1.5	SATELLITE & PAYLOAD SERVICING & C/O
MRWG SAAX0019(59)	PAYLOAD CHECKOUT SERVICES
CRSS 7.3.1	SUPPORT FAULT DETECTION/ISOLATION/RECOVERY
RFP C-2-3.1.7	PAYLOAD INTEGRATION, C/O, AND DEPLOYMENT
MRWG COMM1117(37)	PAYLOAD ACTIVATION/SAFING
RFP C-4-2.2.5.3.H	SUPPORT SSPE C/O, ANALYSIS, OPS, & MAINTENANCE
RFP C-4-2.1.2.4	FACILITATE SCHED/UNSCHED SERVICING OF SSPE'S
RFP C-4-2.1.2.4.A	SATELLITE & PAYLOAD SERVICING AT SPACE STATION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.5 NAME: CUSTOMER PAYLOAD CHECKOUT/SERVICE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	CONSTI/F	D	360000.000	1000.000
I	Y	E	SS P/L	D	36000.000	1000.000
O	N	D	MAINTLOG	D	30000.000	1.000
O	N	E	CUST/OPR	D	30000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.6 NAME: SSPE CHECKOUT AND SERVICING
PREPARED BY: C. R. EASTON REVISED BY:
REVISION: 0 REVISION DATE: 03/21/85
FUNCTION TYPE: U PROGRAM PHASE: I,G,B7
ENTERED DATE: 04/12/85

DESCRIPTION:
PROVIDES SUPPORT SOFTWARE, CHECKLISTS AND PROCEDURES TO ASSIST
THE ONBOARD CREW IN CHECKING OUT, DIAGNOSING AND SERVICING
SSPE'S

FUNCTION SOURCES: RFP C-4-2.1.2.4B RFP C-4-2.2.5.3H
CRSS

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 10
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C4-2.2.11.2.B.2	AUTOMATIC SERVICING OF MMU & EMU EQUIP
RFP	C-3-2.1.I	SSPE BERTHING & SERVICING
RFP	C-4-3.10	EMU, MMU AUTOMATIC SERVICING
RFP	C-4-2.2.5.3.H	SUPPORT SSPE G/O, ANALYSIS, OPS, & MAINTENANCE
RFP	C-3-3.2.C	OMV/PLATFORM/OTV MAINTENANCE & SERVICING
RFP	C-4-1.2.G	PROVIDE CAPABILITY TO SERVICE UNMANNED SPACECRAFT
RFP	C-4-2.1.2.4.B	REMOTE PAYLOAD/SAT. SERVICE VIA OMV

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.6 NAME: SSPE CHECKOUT AND SERVICING

		SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
O	N	E	CORE OPR	D	500000.000	3000.000
I	Y	E	OMVOTVIF	D	500000.000	1000.000
I	N	F	4.3.5.1	D	500000.000	3000.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.1 NAME: DEVELOP NORMAL DAY PAYLOAD OPERATIONS
PREPARED BY: C.R. EASTON REVISED BY: BOWMAN
REVISION: 2 REVISION DATE: 04/24/85
FUNCTION TYPE: U PROGRAM PHASE: B5,I,G
ENTERED DATE: 04/24/85

DESCRIPTION:

RECEIVES PLANNED PAYLOAD OPERATIONS DESCRIPTIONS AND LOADS INTO
RECURRING OPERATIONS FILE. PROVIDES USER FRIENDLY DATA ENTRY
SUPPORT.

FUNCTION SOURCES: RFP C-3-2.4.G CRSS 7.2.1
CRSS 8.4.2

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.1 NAME: DEVELOP NORMAL DAY PAYLOAD OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	RECUROPS	D	10000.000	1.000
I	Y	E	CUSTOMER	D	10000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.2 NAME: DEVELOP NORMAL DAY CORE SYSTEM OPERATIONS
PREPARED BY: C.R. EASTON REVISED BY: BOWMAN/EASTON
REVISION: 3 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B5,1,G
ENTERED DATE: 07/01/85

DESCRIPTION:

RECEIVES PLANNED SPACE STATION CORE OPERATIONS DESCRIPTIONS AND LOADS
INTO RECURRING OPERATIONS FILE. USER FRIENDLY DATA ENTRY SUPPORT.

FUNCTION SOURCES: RFP C-3-2.4.G

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.2 NAME: DEVELOP NORMAL DAY CORE SYSTEM OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	OPERATOR	D	100000.000	1.000
O	N	D	RECUOPS	D	100000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.3 NAME: DEVELOP MODE COMPATIBILITY MATRIX
 PREPARED BY: .R. EASTON REVISED BY: BOWMAN/EASTON
 REVISION: 3 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: B5,I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:
 INTERACTS WITH CUSTOMERS AND OPERATORS TO SPECIFY EACH SUBSYSTEM/
 PAYLOAD'S OPERATING MODES IN TERMS OF RESOURCES REQ'D, SENSITIVITIES
 OR EFFECTS TO OTHER OPERATIONS, AND SAFETY EFFECTS/RESTRICTIONS.
 THESE DATA ARE COMPILED INTO THE MODE COMPATIBILITY MATRIX.

FUNCTION SOURCES: CRSS 7.2.1

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.3 NAME: DEVELOP MODE COMPATIBILITY MATRIX

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	RECUROPS	D	100000.000	0.100
I	Y	E	OPERATOR	D	10000.000	0.100
I	N	D	RECUROPS	D	100000.000	1.000
O	Y	E	CUSTOMER	D	10000.000	0.100
O	Y	E	OPERATOR	D	10000.000	0.100
I	Y	E	CUSTOMER	D	10000.000	0.100
I	N	D	CMD DICT	D	100000.000	2.500
O	N	D	COMPMTRX	D	10000.000	1.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.4 NAME: DEVELOP MAJOR EVENT OPERATIONS
PREPARED BY: C.R. EASTON REVISED BY: P.J. BOWMAN
REVISION: 3 REVISION DATE: 05/20/85
FUNCTION TYPE: C PROGRAM PHASE: B5,I,G
ENTERED DATE: 05/20/85

DESCRIPTION:

DEVELOP OPERATIONS PROFILES FOR MAJOR EVENTS SUCH AS NSTS VISITS, OMV
AND OTV LAUNCHES, PAYLOAD AND CORE SYSTEM CHANGES, ETC. LOAD INTO
RECURRING OPERATIONS FILE.

FUNCTION SOURCES: RFP C-3-2.4.G

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.4 NAME: DEVELOP MAJOR EVENT OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	E	NSTS CTL	D	100000.000	100.000
O	Y	D	MSTRPLAN	D	200000.000	2.000
I	N	E	CUSTOMER	D	86400.000	10.000
I	N	D	MSTRPLAN	D	200000.000	1.000
O	N	D	RECUOPS	D	86400.000	10.000
I	Y	E	OPERATOR	D	86400.000	10.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.1 NAME: CONFIRM PAYLOAD AND CORE SCHEDULES
 PREPARED BY: C.R. EASTON REVISED BY: BOWMAN/EASTON
 REVISION: 4 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: B5,I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:

VERIFIES OPERATIONS TO BE PERFORMED, ACCEPTS CHANGES, UPDATES, NEW
 OPERATIONS. PREPATES BASELINE SCHEDULE. COORDINATES DATA LINKS
 AVAILABILITY.

FUNCTION SOURCES: CRSS 0.3 CRSS 7.2.2
 CRSS 5.2.9 CRSS 7.2.1

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 CRSS 0.3 COORDINATE UPLINK/DOWNLINK WITH NCC VIA SSCG
 CRSS 6.2.1.4 PROVIDE TRANSP CUST ACCESS TO STORED GMMD SEQUENCES
 CRSS 7.2.2 SUPPORT REQUESTS FOR SSP RESOURCES

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.1 NAME: CONFIRM PAYLOAD AND CORE SCHEDULES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	MSTRPLAN	D	86400.000	1.000
I	N	D	RECUROPS	D	86400.000	80.000
O	Y	E	NCC	D	86400.000	0.900
I	Y	E	OPERATOR	D	86400.000	1.000
I	N	D	TASKSTAT	D	86400.000	3.000
I	N	D	NORMOPS	D	86400.000	100.000
O	Y	F	3.2.2	D	1000000.000	1.000
O	N	E	CUSTOMER	D	86400.000	80.000
I	N	D	P/L STAT	D	86400.000	80.000
O	N	E	OPERATOR	D	86400.000	20.000
O	N	D	TASKSTAT	D	86400.000	2.000
I	Y	E	NCC	D	86400.000	1.200
I	N	D	MAJEVENT	D	86400.000	10.000
O	Y	F	3.2.3	D	86400.000	100.000
I	Y	E	CUSTOMER	D	86400.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.2 NAME: INCORPORATE NEW/REVISED OPERATIONS
PREPARED BY: C.R. EASTON REVISED BY: BOWMAN/EASTON
REVISION: 3 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B5,I,G
ENTERED DATE: 07/01/85

DESCRIPTION:

ACCEPTS NEW AND REVISED PAYLOAD AND CORE OPERATIONS FROM CUSTOMERS
AND OPERATORS. MAINTAINS RECURRING OPERATIONS FILE CONTAINING
PROFILES OF REPETATIVE OPERATIONS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.2 NAME: INCORPORATE NEW/REVISED OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	3.2.1	D	1000000.000	1.000
O	N	D	RECUOPS	D	100000.000	1.000
I	Y	E	CUSTOMER	D	100000.000	1.000
I	Y	E	GND OPR	D	1000000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.3 NAME: CHECK FOR CONFLICTS
PREPARED BY: C.R. EASTON REVISED BY: BOWMAN/EASTON
REVISION: 3 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B5,I,G
ENTERED DATE: 07/01/85

DESCRIPTION:
CHECKS BASELINE SCHEDULE FOR CONFLICTS AMONG PAYLOAD AND CORE
OPERATIONS. USES SENSITIVITIES, INTERFERENCES, AND CONDITIONS FOR
EXECUTION FROM COMMAND DICTIONARY TO DETERMINE CONFLICTS.

FUNCTION SOURCES: CRSS 6.1.6.2 CRSS 7.2.1
 CRSS 7.2.6

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.3 NAME: CHECK FOR CONFLICTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	3.2.1	D	86400.000	100.000
I	N	D	COMPMTRX	D	86400.000	100.000
I	N	D	REGUOPS	D	86400.000	80.000
O	Y	F	3.2.4	D	21600.000	100.000
I	Y	F	3.2.5	D	21600.000	100.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.4 NAME: CHECK FOR FACILITIES CAPABILITIES
PREPARED BY: C.R. EASTON REVISED BY: P.J. BOWMAN
REVISION: 3 REVISION DATE: 05/20/85
FUNCTION TYPE: C PROGRAM PHASE: B5,I,G
ENTERED DATE: 05/20/85

DESCRIPTION:

RECEIVES TRIAL SCHEDULE, CHECKS RESOURCE DEMAND AGAINST RESOURCES AVAILABLE. DETERMINE EXCESS INSTANTANEOUS AND SHORT TERM AVERAGE DEMAND CONDITIONS.

FUNCTION SOURCES: CRSS 7.2.2.1

CRSS 7.2.6

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.4 NAME: CHECK FOR FACILITIES CAPABILITIES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	3.2.3	D	21600.000	100.000
I	N	D	RECUROPS	D	86400.000	80.000
I	Y	D	FAC STAT	D	21600.000	1.000
O	Y	F	3.2.5	D	21600.000	100.000
I	N	D	CORESTAT	D	86400.000	20.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.5 NAME: RESOLVE CONFLICTS

PREPARED BY: C.R. EASTON

REVISED BY: BOWMAN/EASTON

REVISION: 4

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: B5,I,G

ENTERED DATE: 07/01/85

DESCRIPTION:

PROVIDES INTERACTIVE RESOLUTION WITH CUSTOMERS AND OPERATOR FOR
 PAYLOAD AND CORE OPERATIONS WHICH EXCEED RESOURCE LIMITS OR INTERFERE
 WITH OTHER OPERATIONS. SUPPORTS RAPID REPLANNING FOR OPPORTUNITIES.

FUNCTION SOURCES: CRSS 7.2.1
 CRSS 7.2.6

CRSS 7.2.2.1

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED:
 REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.5 NAME: RESOLVE CONFLICTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	GND OPR	D	21600.000	1.000
I	N	D	CORESTAT	D	86400.000	20.000
O	N	D	CMMD LOG	D	86400.000	80.000
O	Y	F	3.2.3	D	21600.000	100.000
I	N	D	SHORTSCH	D	1000.000	1.000
I	N	D	PRIORITY	D	86400.000	1.000
O	N	E	CUSTOMER	D	21600.000	1.000
I	Y	E	CREW	D	10000.000	0.100
I	Y	F	3.2.4	D	21600.000	100.000
O	Y	F	3.3.2	D	1000.000	1.000
O	Y	F	3.2.6	D	86400.000	100.000
I	Y	F	3.3.2	D	1000.000	1.000
I	Y	E	GND OPR	D	21600.000	1.000
O	N	E	CREW	D	10000.000	1.000
I	Y	E	CUSTOMER	D	21600.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.6 NAME: MAINTAIN SHORT TERM SCHEDULES
 PREPARED BY: C.R. EASTON REVISED BY: BOWMAN/EASTON
 REVISION: 3 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: B5,I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:

ENTERS APPROVED OPERATIONS IN SHORT TERM SCHEDULE. MAINTAINS
 FORECASTS OF RESOURCE UTILIZATION, CORE SYSTEM AND PAYLOAD MODES, AND
 RESOURCE AVAILABILITY. MAINTAINS TASK AND COMMAND STATUS.

FUNCTION SOURCES: CRSS 7.2.4

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS 6.2.1		ALLOW CUSTOMER TO OPERATE P/L REAL TIME
CRSS 6.1.3.1		RESTRICTED/CONSTRAINED COMMAND INHIBITION, TRANSMISSION
CRSS 6.1.6.2		CHECK RESTRICTED/CONSTRAINED COMMANDS FOR EXECUTION
CRSS 6.2.1.2		INCLUDE RESTRICTED/CONSTRAINED COMMANDS IN REAL TIME OPS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.6 NAME: MAINTAIN SHORT TERM SCHEDULES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	CMMD LOG	D	10.000	0.100
O	N	D	MAJEVENT	D	860000.000	1.000
O	N	D	TASKSTAT	D	10.000	0.100
O	N	D	NORMOPS	D	86400.000	1.000
I	Y	F	3.2.5	D	86400.000	100.000
O	N	D	SHORTSCH	D	10.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.1 NAME: TIME TAG OPERATIONS
PREPARED BY: C.R.EASTON REVISED BY: P.J. BOWMAN
REVISION: 3 REVISION DATE: 05/08/85
FUNCTION TYPE: C PROGRAM PHASE: B5,I,G
ENTERED DATE: 05/08/85

DESCRIPTION:
SELECTS OPERATIONS FROM SHORT TERM SCHEDULE AND 3.3.2. ENTERS
APPROPRIATE CODE AND TIME FOR DELIVERY INTO 3.3.3.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 3

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.1 NAME: TIME TAG OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	3.3.3	D	1.000	1.000
I	Y	D	SHORTSCH	D	10.000	1.000
I	Y	F	3.3.2	D	1.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.2 NAME: CHECK SCHEDULE CONFLICTS
 PREPARED BY: C.R. EASTON REVISED BY: BOWMAN/EASTON
 REVISION: 5 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: B5,I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:
 CHECKS MODE COMPATIBILITY MATRIX TO SCHEDULE MUTUALLY COMPATIBLE
 OPERATING MODES TO SATISFY REQUESTS FOR FUTURE OPERATION.

FUNCTION SOURCES: CRSS 6.1.3.1 CRSS 6.1.6.2
 CRSS 6.2.1.2 CRSS 6.2.1.3

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS 6.2.1		ALLOW CUSTOMER TO OPERATE P/L REAL TIME
CRSS 6.1.6.2		CHECK RESTRICTED/CONSTRAINED COMMANDS FOR EXECUTION
CRSS 6.1.3.1		RESTRICTED/CONSTRAINED COMMAND INHIBITION, TRANSMISSION
CRSS 6.2.1.2		INCLUDE RESTRICTED/CONSTRAINED COMMANDS IN REAL TIME OPS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.2 NAME: CHECK SCHEDULE CONFLICTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	3.2.5	D	1000.000	1.000
I	N	D	COMPMTRX	D	100.000	1.000
O	N	D	CMMD LOG	D	1.000	0.100
O	Y	F	3.3.1	D	1.000	1.000
I	Y	F	3.2.5	D	1000.000	1.000
I	N	D	CORESTAT	D	1.000	0.100
I	Y	D	CUSCMDSD	D	1000.000	1.000
I	Y	D	SHORTSCH	D	1.000	10.000
I	Y	F	2.3.2	D	10000.000	1.000
I	N	D	CMD DICT	D	1.000	1.000
I	N	D	P/L STAT	D	1.000	0.100
I	Y	D	MODESTAT	D	100000.000	1.000
I	Y	F	2.2	D	100.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.3 NAME: MAINTAIN OPERATING EVENTS SCHEDULE
PREPARED BY: C.R. EASTON REVISED BY: BOWMAN
REVISION: 2 REVISION DATE: 04/24/85
FUNCTION TYPE: C PROGRAM PHASE: B5,I,G
ENTERED DATE: 04/24/85

DESCRIPTION:

PREPARES ENTRIES FOR OPERATING EVENTS SCHEDULE. UPDATES SCHEDULE AS
REQUIRED. MAINTAINS TASK STATUS LOG AND COMMAND LOG.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.3 NAME: MAINTAIN OPERATING EVENTS SCHEDULE

SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT		
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
O	N	D	OPEVENTS	D	1.000	1.000
O	N	D	TASKSTAT	D	1.000	0.100
I	Y	F	3.3.4	D	100000.000	1.000
I	Y	F	3.3.1	D	1.000	1.000
O	N	D	CMMD LOG	D	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.4 NAME: ADJUST FOR UNSCHEDULED MODE CHANGES
 PREPARED BY: C.R. EASTON REVISED BY: BOWMAN/EASTON
 REVISION: 4 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: B5,I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:

RECEIVES NOTIFICATION OF MODE CHANGES. DETERMINES WHETHER MODE
 CHANGES ARE SCHEDULED. CHECKS WHETHER OPERATIONS ARE EXECUTABLE IN
 NEW MODE. NOTIFIES CUSTOMER, OPERATOR, AND FUNCTION 3.3.3 OF MODE
 CHANGE AND IMPACT.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y
 REQUIREMENTS:

NUMBER: 2

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.4 NAME: ADJUST FOR UNSCHEDULED MODE CHANGES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	3.3.3	D	100000.000	1.000
O	N	E	CUSTOMER	D	100000.000	0.100
O	N	E	OPERATOR	D	100000.000	0.100
O	Y	F	5.2.5	D	100000.000	0.100
I	N	D	OPEVENTS	D	100000.000	100.000
I	N	D	CMD DICT	D	100000.000	1000.000
I	Y	D	MODESTAT	D	1000.000	1.000
I	N	D	COMPMTRX	D	5000.000	1.000
I	N	F	3.4.3	D	600.000	0.100
I	Y	D	P/L STAT	D	600.000	0.100
I	N	D	SHORTSCH	D	1000.000	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.1 NAME: SEQUENCE PAYLOAD OPERATIONS
 PREPARED BY: C. R. Easton REVISED BY: BOWMAN/EASTON
 REVISION: 2 REVISION DATE: 06/21/85
 FUNCTION TYPE: U PROGRAM PHASE: I,G,B7
 ENTERED DATE: 07/01/85

DESCRIPTION:

Selects payload operations to be executed from operations events schedule. Dispatches operating commands to payloads, communications, interfaces, or operations support. Logs commands executed.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 CRSS 6.3.1.1 ACTIVATE STORED COMMAND SEQUENCES
 CRSS 6.3.2 STORED PAYLOAD COMMAND ACTIVATED BY ANOTHER STORED COMMAND

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.1 NAME: SEQUENCE PAYLOAD OPERATIONS

SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT	
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC) (KBYTES)
I	Y	F	3.4.4	D	30.000 0.200
I	Y	D	NAVSTATE	C	1.000 0.050
O	Y	E	SS P/L	D	60.000 1.000
O	Y	E	OMVOTVIF	D	180.000 1.000
O	Y	F	2.5.2	D	60.000 0.200
O	N	D	CMMD LOG	D	60.000 0.100
O	N	D	TASKSTAT	D	60.000 0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.2 NAME: SEQUENCE CORE SYSTEM OPERATIONS
PREPARED BY: C. R. Easton REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: I,G,B1
ENTERED DATE: 07/01/85

DESCRIPTION:

Selects Core system operations to be executed from operations events schedule. Dispatches operating commands to core systems. Logs commands executed.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 2

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.2 NAME: SEQUENCE CORE SYSTEM OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	CMMD LOG	D	60.000	0.100
I	Y	D	NAVSTATE	C	1.000	0.050
O	Y	F	4.0	D	1.000	0.100
I	Y	F	3.4.4	D	10.000	0.200
O	Y	F	3.4.3	D	600.000	0.100
O	N	D	TASKSTAT	D	60.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.3 NAME: COMMAND SCHEDULED MODE CHANGE
PREPARED BY: C. R. Easton REVISED BY: BOWMAN/EASTON
REVISION: 1 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: I,G,B1
ENTERED DATE: 07/01/85

DESCRIPTION:

Coordinates and implements scheduled mode change commands. Advises customers and operators of mode change and potential consequences such as not executable operations.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 3

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.3 NAME: COMMAND SCHEDULED MODE CHANGE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	3.4.2	D	600.000	0.100
O	N	D	MODESTAT	D	600.000	0.100
O	N	F	3.3.4	D	600.000	0.100
O	N	E	OPERATOR	D	600.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.4 NAME: CHECK FOR EXECUTABILITY
PREPARED BY: BOWMAN/EASTON REVISED BY:
REVISION: 0 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: I,G,B1
ENTERED DATE: 07/02/85

DESCRIPTION:
CHECKS COMMANDS IMMEDIATELY PRIOR TO EXECUTION TO VERIFY THE
PENDING OPERATION'S COMPATIBILITY WITH CURRENT SYSTEM MODES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 2

DATA PRIVACY CODE:

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 1
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.4 NAME: CHECK FOR EXECUTABILITY

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	P/L STAT	D	10.000	0.500
I	N	D	CORESTAT	D	10.000	1.000
O	Y	F	3.4.2	D	10.000	0.200
I	N	D	PRIORITY	D	10.000	0.050
O	Y	F	3.4.1	D	30.000	0.200
I	N	D	COMPMTRX	D	10.000	0.500
I	Y	D	OPEVENTS	D	10.000	0.200

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.1 NAME: SPACE CRAFT STATE/ORBIT DETERMINATION
PREPARED BY: T. J. SMITH REVISED BY: BOWMAN/EASTON/SMITH
REVISION: 1 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I
ENTERED DATE: 07/01/85

DESCRIPTION:
INCORPORATE GPS MEASUREMENTS IN RECURSIVE FILTER; INCORPORATE TDRSS
TRACKING MEASUREMENTS; INCORPORATE COMMAND UPDATE STATE.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 4.1.3 PROVIDE ORBIT POSITION, TBD M ACCURACY
MRWG SAAXO201(74) DETERMINE SPACE STATION STATE/ORBIT
RFP C-4-2.2.7.1.A ACCEPT SECOND SOURCE STATE VECTOR UPDATE
RFP C-4-2.2.7.1.A ESTABLISH AND MAINTAIN SSPE STATE VECTOR

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.1 NAME: SPACE CRAFT STATE/ORBIT DETERMINATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	E	TDRSS	C	2.000	2.000
O	N	D	NAVSTATE	C	2.000	0.050
O	N	F	4.1.1.4	C	2.000	0.050
O	Y	F	4.4.1.1	D	2.000	0.050
I	N	E	GPS TRAK	C	2.000	0.150

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.2 NAME: CONSTELLATION STATE/ORBIT DETERMINATION
PREPARED BY: T. J. SMITH REVISION: 1
REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: G
ENTERED DATE: 07/01/85

DESCRIPTION:

PROPAGATE REL. STATE, INCORPORATE TRACKING RELATIVE STATE MEASUREMENTS IN RECURSIVE FILTER, ESTIMATE REL. STATES, ADD SPACE STATION STATE, STORE OBJECT STATES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.7.1.A ACCEPT SECOND SOURCE STATE VECTOR UPDATE
RFP C-4-2.2.7.1.A ESTABLISH AND MAINTAIN SSPE STATE VECTOR
MRWG SAAX0009(52) DETERMINE CONSTELLATION STATE/ORBIT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.2 NAME: CONSTELLATION STATE/ORBIT DETERMINATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	OBJSTATE	C	2.000	2.000
O	N	D	OBJSTATE	C	2.000	2.000
O	N	D	NAVSTATE	C	2.000	2.000
I	N	D	NAVSTATE	C	2.000	0.050

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.3 NAME: DETERMINE EPHEMERIDES (SUN, MOON, ETC.)
PREPARED BY: T. J. SMITH REVISD BY: BOWMAN/EASTON
REVISION: 1 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 07/01/85

DESCRIPTION:

DETERMINE EPHEMERIDES TIME, COMPUTE RIGHT ASCENSION & DECLINATION OF
SUN, MOON, PLANETS AS FUNCTION OF EPHEMERIS TIME; MAINTAIN
CELESTIAL OBJECT TABLE AND ADJUST FOR PROPER MOTION; MAINTAIN
GEOSYNCHRONOUS OBJECT STATE; STORE IN EPHEMERIDES TABLES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

MRWG SAAX006(13) DETERMINE EPHEMERIDES

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.3 NAME: DETERMINE EPHEMERIDES (SUN, MOON, ETC.)

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	F	4.1.2.6	C	600.000	0.050
I	N	D	NAVSTATE	C	600.000	0.100
O	N	D	EPHEMER	C	600.000	0.060
I	Y	D	STARCATL	D	6000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.4 NAME: ATTITUDE DETERMINATION

PREPARED BY: T. J. SMITH

REVISED BY:

REVISION: 0

REVISION DATE: 02/26/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

INTEGRATE RATE FOR STRAPDOWN INERTIAL REFERENCE, CONTROL STAR SELECTION, INCORPORATE STAR TRACKER MEASUREMENTS, SELECTION FILTER & EDIT MEASUREMENTS, ESTIMATE GYRO DRIFT, RECURSIVELY FILTER STRAPDOWN & STAR REFERENCE (KALMAN FILTER), PERFORM COORDINATE TRANSFORMS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 4.1.4

PROVIDE ATTITUDE, TBD DEG. ACCURACY

MRWG TDMX2410(22)

DETERMINE SPACE STATION ATTITUDE

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.4 NAME: ATTITUDE DETERMINATION

		SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
O	N	D	NAVSTATE	C	0.100	0.150
I	N	E	STARTRAK	C	2.000	0.200
O	Y	E	STARTRAK	D	600.000	0.050
I	N	E	RATEGYRO	C	0.100	0.100
I	N	D	EPHEMER	C	600.000	0.400
O	N	D	GNC STAT	C	60.000	0.200
I	N	F	4.1.1.1	C	2.000	0.050

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.5 NAME: NAVIGATION STATE PROPAGATION

PREPARED BY: T.J. SMITH

REVISED BY: P.J. BOWMAN

REVISION: 1

REVISION DATE: 05/20/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 05/20/85

DESCRIPTION:

MODEL DRAG, MODEL GRAVITY, MODEL VENTING DISTURBANCE, INCORPORATE
RCS THRUST, INTEGRATE STATE EQUATIONS TO DESIRED TIME, STORE
STATE FORECAST.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

MRWG TDMX2260(46)	PROPOGATE SPACE STATION STATE
RFP C-4-2.2.7.1.C	PROVIDE STATE VECTOR AND TM TO SUPPORT CUSTOMER
MRWG COMM1105(37)	PROPAGATE CONSTELLATION STATE
RFP C-4-2.2.7.1.B	PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.5 NAME: NAVIGATION STATE PROPAGATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	ENVIRON	C	5.000	0.080
I	N	D	MASSPROP	D	860000.000	0.020
O	N	D	NAVSTATE	C	10.000	2.000
I	N	D	NAVSTATE	C	2.000	0.080
O	N	F	4.1.2.3	C	10.000	0.100
I	Y	F	4.1.2.1	D	3000000.000	0.100
O	N	D	NVSTFCST	C	60.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.6 NAME: DEVICE MANAGEMENT

PREPARED BY: T. J. SMITH

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 02/26/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

GPS REDUNDANCY MANAGEMENT (RM IS FAULT DETECTION, ISOLATION AND RECOVERY); STAR TRACKER RM; RATE GYRO RM

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.6 NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.7 NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: T.J. SMITH

REVISED BY:

REVISION: 0

REVISION DATE: 02/26/85

FUNCTION TYPE: C

PROGRAM PHASE: B3,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

DISPLAY NAVIGATION STATUS; ACCEPT RECONFIGURATION COMMANDS; PROCESS
TELEMETRY OR CREW COMMANDS; INITIATE SEQUENCING AND MODING; DISPLAY
ATTITUDE STATUS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.7 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.1 NAME: REBOOST/REENTRY TARGETING

PREPARED BY: T.J.SMITH

REVISED BY: P.J. BOWMAN

REVISION: 1

REVISION DATE: 05/08/85

FUNCTION TYPE: C

PROGRAM PHASE: B4,I,G

ENTERED DATE: 05/08/85

DESCRIPTION:

COMPUTE VELOCITY INCREMENT & TIME OF IGNITION FOR DESIRED STATE;
ITERATE WITH STATE PROPAGATION; INITIATE TARGETING COMPUTATION
REQUEST GUIDANCE TO PERFORM MANEUVER; ACCEPT GROUND COMMANDS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.1.4.2 DISPOSAL OF SSPE'S

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.1 NAME: REBOOST/REENTRY TARGETING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.1.2.2	D	3000000.000	0.100
O	Y	F	4.1.1.5	D	3000000.000	0.100
I	Y	F	4.1.2.3	D	3000000.000	0.100
I	Y	F	3.4.2	D	3000000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.2 NAME: MANEUVER COORDINATION

PREPARED BY: T.J. SMITH

REVISED BY: BOWMAN/EASTON

REVISION: 3

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: B4,I,G

ENTERED DATE: 07/01/85

DESCRIPTION:

REQUEST MANEUVER TO THRUSTING ATTITUDE, WAIT FOR MANEUVER COMPLETE,
REQUEST THRUSTING MANEUVER, COORDINATE TETHER MANEUVERS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

MRWG COMM1201(75)

COORDINATE REBOOST

RFP C-4-2.2.7.1.D

PROVIDE NAV & GUIDANCE FOR SSPE TRAFFIC CTRL

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.2 NAME: MANEUVER COORDINATION

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	Y	D	MODESTAT	D	3000000.000	0.050
I	Y	F	4.1.2.1	D	3000000.000	0.100
O	Y	D	MODESTAT	D	3000000.000	0.050
I	Y	F	4.1.2.5	D	3000000.000	0.100
O	Y	F	4.1.2.4	D	3000000.000	0.200

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.3 NAME: COLLISION CHECK

PREPARED BY: T.J. SMITH

REVISED BY: BOWMAN/EASTON

REVISION: 1

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: B4,I,G

ENTERED DATE: 07/01/85

DESCRIPTION:

MONITOR PROJECTED STATES, COMPUTE MANEUVER PLAN; ACCEPT OPERATOR
COMMANDS; INITIATE REBOOST RETARGETING

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 1

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.3 NAME: COLLISION CHECK

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	OPERATOR	D	3000000.000	0.500
I	N	D	NVSTFCST	C	86000.000	0.050
I	N	D	OBJSTATE	C	86000.000	8.000
O	Y	F	4.1.2.1	D	3000000.000	0.100
O	Y	F	4.1.4.5	D	3000000.000	0.300
I	Y	E	OPERATOR	D	3000000.000	0.080
I	N	F	4.1.1.5	C	10.000	0.100
I	Y	F	4.1.4.5	D	3000000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.4 NAME: REBOOST MANEUVER

PREPARED BY: T.J.SMITH

REVISION: 3

FUNCTION TYPE: C

REVISED BY: BOWMAN/EASTON

REVISION DATE: 06/21/85

PROGRAM PHASE: B4,I,G

ENTERED DATE: 07/01/85

DESCRIPTION:

COMPUTE POWERED ITERATIVE GUIDANCE COMMANDS, REQUEST RCS JET SELECTION FOR GUIDANCE DELTA VELOCITY COMMANDS, MONITOR PROJECTED STATE HISTORY.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.8 ATTITUDE CTRL & VELOCITY ADJUSTMENT
RFP C-4-2.2.7.1.Q PROVIDE RCS INHIBITS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.4 NAME: REBOOST MANEUVER

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	NAVSTATE	C	10.000	0.100
I	Y	F	4.1.2.2	D	3000000.000	0.200
O	Y	F	4.1.3.1	C	1.000	0.100
O	Y	F	4.1.3.3	C	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.5 NAME: TETHER CONTROL

PREPARED BY: T. J. SMITH

REVISION: 3

FUNCTION TYPE: C

REVISED BY: P.J. BOWMAN

REVISION DATE: 05/20/85

PROGRAM PHASE:

ENTERED DATE: 05/20/85

DESCRIPTION:

ISSUE TETHER COMMANDS, COORDINATE TETHER COMMANDS WITH REBOOST
THRUSTING, ACCEPT EXTERNAL TETHER COMMANDS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.7.1.S PROVIDE CTRL DURING TETHERED OPS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.5 NAME: TETHER CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
O	N	D	TETHSTAT	C	30.000	0.100
I	Y	F	3.4.2	D	3600.000	0.050
O	N	F	4.1.2.2	D	3000000.000	0.100
I	N	E	TETHER	C	10.000	0.100
O	Y	E	TETHER	C	10.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.6 NAME: DETERMINE POINTING MOUNT CONTROLS
 PREPARED BY: T. J. SMITH REVISED BY: BOWMAN/EASTON
 REVISION: 3 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: B4,I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:
 POINT SOLAR ARRAYS, POINT RADIATOR PANELS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-2-3.1.2	ARTICULATING MOUNTS FOR EXTERNAL PAYLOAD
RFP	C-4-2.1.2.1	ARTICULATING MOUNTS FOR EXTERNAL PAYLOADS
RFP	C-4-2.2.7.1.L	PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES
RFP	C-4-2.2.7.2b	CONTROL POINTING MOUNTS TO 0.1 DEG

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.6 NAME: DETERMINE POINTING MOUNT CONTROLS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	NAVSTATE	C	1.000	0.080
I	Y	F	4.2.1.3	C	60.000	0.100
I	N	F	4.1.1.3	C	600.000	0.050
O	Y	F	4.2.1.3	C	60.000	0.100
O	Y	F	4.1.3.4	C	1.000	0.200
I	Y	F	4.4.1.4	C	2.000	0.200
O	Y	F	4.2.5.6	C	600.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.7 NAME: DEVICE MANAGEMENT

PREPARED BY: T.J. SMITH

REVISED BY: J.DASHIELL

REVISION: 1

REVISION DATE: 05/01/85

FUNCTION TYPE: C

PROGRAM PHASE: B4,I,G

ENTERED DATE: 05/08/85

DESCRIPTION:

SOLAR PANEL DRIVE RM, RADIATOR PANEL DRIVE RM.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0.

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.7 NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
-----					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.8 NAME: COMMAND INTERFACE PROCESSING
PREPARED BY: T.J. SMITH REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B4,I,G
ENTERED DATE: 07/01/85

DESCRIPTION:
DISPLAY STATUS OF GUIDANCE, ACCEPT RECONFIGURATION COMMANDS, PROCESS
TELEMETRY OR CREW COMMANDS, INITIATE MODING AND SEQUENCE CONTROL.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.8 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.1 NAME: CONTROL ATTITUDE AND TRANSLATION
 PREPARED BY: COLLYER/HI REVISED BY: BOWMAN/EASTON
 REVISION: 3 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: I,G
 ENTERED DATE: 07/01/85

DESCRIPTION:
 STATION ATTITUDE CONTROL, INCLUDING REBOOST TRANSLATIONAL CONTROL.

FUNCTION SOURCES: REF CONFIG

CRITICALITY - RECOVERY TIME: 1 IMPACT: 1

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 7
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-2.2.7.1.H	ESTABLISH & MAINTAIN SSPE RELATIVE ATTITUDE
RFP	C-4-2.2.7.2b	CONTROL STATION ATTITUDE TO +/- DEG
RFP	C-4-2.2.7.1.L	PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES
RFP	C-4-2.2.7.2b	LIMIT ANGULAR RATE TO 0.02 DEG/SEC

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.1 NAME: CONTROL ATTITUDE AND TRANSLATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	GNC STAT	C	20.000	0.100
I	N	F	4.1.3.3	C	20.000	0.400
I	Y	F	3.4.2	D	100000.000	0.200
I	Y	E	MAGMETER	C	10.000	0.400
I	Y	F	4.1.2.4	C	1.000	0.100
I	N	D	MASSPROP	C	10.000	0.400
I	Y	E	MODESENS	C	10.000	0.400
I	N	E	RATEGYRO	C	0.200	0.400
I	N	D	NAVSTATE	C	0.800	0.300
O	Y	F	4.1.3.2	C	0.200	0.800

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.2 NAME: GENERATE ATTITUDE COMMANDS

PREPARED BY: COLLYER/HI

REVISED BY: BOWMAN

REVISION: 0

REVISION DATE: 04/06/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

CONTROL AND MANAGEMENT OF ATTITUDE CONTROL DEVICES BASED ON COMMAND MOMENTS/FORCES DURING ORBIT OPERATION AND REBOOST.

FUNCTION SOURCES: SSDS LVL DFD 4.1

CRITICALITY - RECOVERY TIME: 1

IMPACT: 1

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 6

DOC PARAGRAPH NO. DESCRIPTION

MRWG TDMX2120(12) COORDINATE ATTITUDE MANEUVER

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.2 NAME: GENERATE ATTITUDE COMMANDS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	CMG	C	0.200	0.500
I	Y	E	RCS	C	0.200	0.500
I	Y	E	MAGTORQ	C	0.200	0.200
O	N	E	RCS	C	0.200	0.500
I	Y	F	4.1.3.1	C	0.200	0.800
O	N	E	MAGTORQ	C	0.200	0.200
O	N	D	GNC STAT	C	5.000	0.200
I	Y	E	CMG	C	0.200	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.3 NAME: MOMENTUM MANAGEMENT

PREPARED BY: YEICHNER/HI

REVISED BY: BOWMAN/EASTON

REVISION: 2

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 07/01/85

DESCRIPTION:

4.1.3.3 MOMENTUM MANAGEMENT, MANAGEMENT OF MOMENTUM EXCHANGE SYSTEM
AND DEVICES (CMGs)

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 1

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.7.1.P PROVIDE ACTIVE MOMENTUM MGMT

RFP C-4-2.2.8 ATTITUDE CTRL & VELOCITY ADJUSTMENT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.3 NAME: MOMENTUM MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	ENVIRON	C	20.000	0.100
I	N	D	MASSPROP	C	10.000	0.400
I	Y	F	4.1.2.4	C	1.000	0.100
I	N	D	NAVSTATE	C	0.800	0.300
O	N	F	4.1.3.1	C	20.000	0.400

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.4 NAME: POINTING MOUNT CONTROL
PREPARED BY: BURTON/HI REVISION: 4
FUNCTION TYPE: C

REVISED BY: BOWMAN/EASTON
REVISION DATE: 06/21/85
PROGRAM PHASE: I,G
ENTERED DATE: 07/03/85

DESCRIPTION:

PROCESS ACS (4.1.3.1) SENSOR DATA AND F/B TO PRODUCE TORQUING
COMMANDS TO THE SOLAR ARRAY AND RADIATOR GIMBALS.

FUNCTION SOURCES: REF CONFIG DOC

CRITICALITY - RECOVERY TIME: 1

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED:
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.4 NAME: POINTING MOUNT CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	N	E	PNTG MNT	C	0.500	1.000
O	Y	E	PNTG MNT	D	0.500	1.000
I	Y	F	4.1.2.6	C	1.000	0.200
O	N	D	CORESTAT	C	0.500	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.5 NAME: DEVICE MANAGEMENT

PREPARED BY: T. J. SMITH

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 02/26/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

RCS REDUNDANCY MANAGEMENT, CMG REDUNDANCY MANAGEMENT, MODE SENSORS
RM, MAGNETIC TORQUER RM

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 1

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.5 NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION TYPE CODE	INPUT/OUTPUT CODE RATE(SEC)	DATA AMOUNT (KBYTES)
			0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.6 NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: T. J. SMITH

REVISED BY:

REVISION: 0

REVISION DATE: 02/26/85

FUNCTION TYPE: C

PROGRAM PHASE: B3,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

DISPLAY ATTITUDE CONTROL STATUS, ACCEPT RECONFIGURATION COMMANDS,
PROCESS TELEMETRY OR CREW COMMANDS, INITIATE SEQUENCING AND MODING
FOR ATTITUDE REFERENCE CHANGES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.6 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.1 NAME: COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATES
 PREPARED BY: T.J. SMITH REVISED BY: P.J. BOWMAN
 REVISION: 2 REVISION DATE: 05/17/85
 FUNCTION TYPE: C PROGRAM PHASE: B4,I,G
 ENTERED DATE: 05/20/85

DESCRIPTION:

PROPAGATE STATES, COMPUTE RELATIVE STATES, INCORPORATE TRACKING
 MEASUREMENTS IN RECURSIVE FILTER, PLAN MANEUVERS FOR COLLISION AVOI-
 DANCE, INITIATE OTV & OMV RENDEZVOUS SEQUENCES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 1 IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-2.2.7.1.F	PROVIDE WARNING & COMMAND FOR UNSAFE SSPE TRAFFIC CONDITIONS
RFP	C-4-2.2.7.1.C	PROVIDE STATE VECTOR AND TM TO SUPPORT CUSTOMER
RFP	C-4-2.2.7.1.D	PROVIDE NAV & GUIDANCE FOR SSPE TRAFFIC CTRL
RFP	C-4-2.2.7.1.B	PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.1 NAME: COMPUTE/PROPAGATE CONSTELLATION RELATIVE STATES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	OBJSTATE	C	60.000	0.150
O	Y	F	4.1.4.5	D	86000.000	0.500
I	N	F	4.1.5.4	C	1.000	0.150
I	Y	F	4.1.4.4	D	86000.000	0.150
O	N	D	NAVSTATE	C	60.000	1.500
O	Y	F	4.1.4.4	D	1.000	0.150
O	N	F	4.1.4.3	D	1000000.000	0.800
I	Y	F	4.1.4.2	D	86000.000	0.600
I	N	D	NAVSTATE	C	60.000	1.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.2 NAME: MANAGE CONSTELLATION ORBIT MANEUVERS
 PREPARED BY: T.J.SMITH REVISED BY: P.J. BOWMAN
 REVISION: 1 REVISION DATE: 05/08/85
 FUNCTION TYPE: C PROGRAM PHASE: B4,I,G
 ENTERED DATE: 05/08/85

DESCRIPTION:

MONITOR OBJECT STATES, ISSUE CONSTELLATION MANEUVER COMMANDS, REQUEST
 STATE PROPAGATION FOR PLANNED MANEUVERS, COMPAREPROPAGATED AND ESTI-
 MATED STATES, ITERATE TO DESIRED COFLIER STATE.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 1 IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 MRWG COMM1304(11) POWERED GUIDANCE
 RFP C-4-2.2.7.2d POSITION COP TO +/- 100M ALT & PLANE
 RFP C-4-2.2.7.1.D PROVIDE NAV & GUIDANCE FOR SSPE TRAFFIC CTRL
 RFP C-4-2.2.7.1.R PERFORM COLLISION AVOIDANCE MANUVERS
 MRWG COMM1304(47) TARGET COFLIER MANEUVER

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.2 NAME: MANAGE CONSTELLATION ORBIT MANEUVERS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	NAVSTATE	C	10.000	0.800
I	N	D	OBJSTATE	C	10.000	0.800
O	Y	F	4.1.4.1	D	86000.000	0.600
I	Y	F	4.1.4.5	D	3000000.000	0.100
O	Y	E	CONSTI/F	D	86000.000	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.3 NAME: SCHEDULE DEPLOYMENT/RENDEZVOUS

PREPARED BY: T.J. SMITH

REVISED BY:

REVISION: 0

REVISION DATE: 02/26/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

INITIATE DEPLOYMENT/RETRIEVAL SEQUENCES FOR OMV AND OTV, TRANSFER
STATE TO OMV AND OTV, MONITOR OBJECT STATES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

MRWG SAAX0012(35) SCHEDULE RENDEZVOUS
MRWG COMM1304(11) POWERED GUIDANCE

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.3 NAME: SCHEDULE DEPLOYMENT/RENDEZVOUS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	F	4.1.4.1	D	1000000.000	0.800
O	Y	F	2.5.3.3	D	3000000.000	0.100
I	Y	D	MSTRPLAN	D	1000000.000	0.200
O	Y	F	2.5.4.3	D	1000000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.4 NAME: MANAGE RENDEZVOUS

PREPARED BY: T.J. SMITH

REVISED BY: P.J. BOWMAN

REVISION: 2

REVISION DATE: 05/17/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 05/20/85

DESCRIPTION:

ISSUE COFLIER RENDEZVOUS MANEUVER COMMANDS, MONITOR COFLIER STATE,
REQUEST STATE PROPAGATION FOR RENDEVOUS MANEUVERS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 1

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP	C-3-2.4.E	PROX OPS MGMT. CAPABILITY
RFP	C-4-2.2.7.1.E	APPR/DEP TRAJ FOR SSPE'S
RFP	C-4-2.2.7.1.M	SUPPORT BERTHING, DOCKING, & SEPERATION OPS
RFP	C-4-2.2.7.2e	POSITION ALL TRAFFIC WITHIN 1M DURING PROX OPS
RFP	C-4-3.5.4	SS CTRL & SAFETY OF FF, SATELLITES DURING PROX OPS
RFP	C-4-3.3.3	OTV OPERATIONS CONTROL & SAFETY

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.4 NAME: MANAGE RENDEZVOUS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	CONSTI/F	D	600.000	0.080
I	N	D	OBJSTATE	C	60.000	0.050
O	Y	F	4.1.4.1	D	86000.000	0.150
O	Y	F	4.1.5.2	C	1.000	0.300
I	Y	F	4.1.4.5	D	3000000.000	0.100
I	Y	F	4.1.4.1	D	1.000	0.150

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.5 NAME: TARGET COLLISION AVOIDANCE

PREPARED BY: T.J.SMITH

REVISED BY: BOWMAN

REVISION: 0

REVISION DATE: 04/08/85

FUNCTION TYPE: C

PROGRAM PHASE: B4,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

WARN OPERATOR OF IMPENDING COLLISION, ACCEPT MANEUVER CHANGE FROM OPERATOR, REQUEST STATION MANEUVER TO AVOID COLLISION, REQUEST RETARGETING OF RENDEZVOUS, MONITOR CONSTELLATION PROJECTED RELATIVE STATE.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 1

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP	C-4-2.2.7.1.R	PERFORM COLLISION AVOIDANCE MANUVERS
RFP	C-3-2.4.H	COLLISION AVOIDANCE FROM ORBITAL DEBRIS
RFP	C-4-2.2.7.1.F	PROVIDE WARNING & COMMAND FOR UNSAFE SSPE TRAFFIC CONDITIONS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.5 NAME: TARGET COLLISION AVOIDANCE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	OPERATOR	D	86000.000	0.500
O	Y	F	4.1.4.4	D	3000000.000	0.100
I	Y	F	4.1.4.1	D	86000.000	0.500
O	Y	F	4.1.2.3	D	3000000.000	0.100
O	Y	F	4.1.4.2	D	3000000.000	0.100
I	Y	F	4.1.2.3	D	3000000.000	0.300
I	Y	E	OPERATOR	D	86000.000	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.6 NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: T.J.SMITH

REVISED BY:

REVISION: 0

REVISION DATE: 02/26/85

FUNCTION TYPE: C

PROGRAM PHASE: B4,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

DISPLAY TRAFFIC CONTROL STATUS, ACCEPT RECONFIGURATION COMMANDS, INITIATE MODING & SEQUENCING, DISPLAY RENDEZVOUS STATUS, DISPLAY PROXIMITY OPERATIONS STATUS.

FUNCTION SOURCES: \

CRITICALITY - RECOVERY TIME: 1

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.4.6 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.1 NAME: LONG RANGE OBJECT TRACKING

PREPARED BY: T. J. SMITH

REVISED BY: EASTON

REVISION: 0

REVISION DATE: 04/08/85

FUNCTION TYPE: C

PROGRAM PHASE: B4,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

CONTROL LONG RANGE TRACKER POINTING; COMMAND SEARCH MODES; CONFIRM
OBJECT TRACK LOCK; DETERMINE DATA GOOD FOR TRACKED OBJECT; CONTROL
DELIVERY OF CONDITIONED DATA ONLY FOR DATA GOOD.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.1 NAME: LONG RANGE OBJECT TRACKING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
		TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
I	N	D	OBJSTATE	C	2.000	0.500
I	Y	F	4.1.5.3	D	60.000	0.300
O	N	F	4.1.5.4	C	1.000	0.050
O	Y	E	L/R TRAK	C	1.000	0.100
I	N	D	NAVSTATE	C	1.000	0.050
O	N	D	C/T STAT	C	1.000	0.100
I	N	E	L/R TRAK	C	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.2 NAME: PROXIMITY TRACKING

PREPARED BY: T.J. SMITH/EASTON

REVISED BY: P.J. BOWMAN

REVISION: 2

REVISION DATE: 05/17/85

FUNCTION TYPE: C

PROGRAM PHASE: B4,I,G

ENTERED DATE: 05/20/85

DESCRIPTION:

CONTROL PROXIMITY TRACKER POINTING; COMMAND SEARCH MODES; CONFIRM
OBJECT TRACK LOCK; DETERMINE DATA GOOD FOR TRACKED OBJECT; CONTROL
DELIVERY OF CONDITIONED DATA ONLY FOR DATA GOOD.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.2 NAME: PROXIMITY TRACKING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.1.4.4	C	1.000	0.300
O	N	D	C/T STAT	C	1.000	0.100
O	N	D	OBJSTATE	C	1.000	0.050
O	N	F	4.1.5.4	C	1.000	0.050
O	Y	E	PROXTRAK	C	1.000	0.100
I	N	E	PROXTRAK	C	1.000	0.100
I	N	D	NAVSTATE	C	1.000	0.050

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.3 NAME: OBJECT CATALOGUE MAINTENANCE

PREPARED BY: T.J. SMITH

REVISED BY: EASTON

REVISION: 0

REVISION DATE: 04/08/85

FUNCTION TYPE: C

PROGRAM PHASE: B4,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

MAINTAIN OBJECT TRACK LIST FOR LONG RANGE & PROXIMITY TRACKING;
ADD/DELETE OBJECTS FROM LIST; CONTROL ACTIVE/INACTIVE TRACKING STAT-
US; INFORM LONG RANGE TRACKING OF NEW OBJECTS; SET INITIAL STATE
ESTIMATE FOR NEW OBJECTS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.3 NAME: OBJECT CATALOGUE MAINTENANCE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.1.5.1	D	60.000	0.300
I	N	D	OBJSTATE	C	1.000	0.100
I	Y	E	NORAD	C	86400.000	1.000
O	N	D	OBJSTATE	D	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.4 NAME: TRACKING DATA CONDITIONING

PREPARED BY: T.J. SMITH

REVISED BY: EASTON

REVISION: 0

REVISION DATE: 04/08/85

FUNCTION TYPE: C

PROGRAM PHASE: B4,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

CONVERT RAW TRACKING DATA TO ENGINEERING FORMAT; ADD OBJECT IDENTIFICATION TO CURRENT TRACKING DATA; INFORM USERS OF DATA GOOD STATUS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.4 NAME: TRACKING DATA CONDITIONING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	PROXTRAK	C	1.000	0.100
I	Y	E	L/R TRAK	C	2.000	0.100
I	N	F	4.1.5.1	C	1.000	0.050
I	N	F	4.1.5.2	C	1.000	0.050
O	N	F	4.1.4.1	C	1.000	0.150

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.5 NAME: DEVICE MANAGEMENT

PREPARED BY: T.J. SMITH

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 04/05/85

PROGRAM PHASE: B4,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

LONG RANGE TRACKER REDUNDANCY MANAGEMENT; PROXIMITY TRACKER REDUNDANCY MANAGEMENT.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N . NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.5 NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.6 NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: T.J. SMITH

REVISED BY:

REVISION: 0

REVISION DATE: 04/05/85

FUNCTION TYPE: C

PROGRAM PHASE: B4,I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

DISPLAY TRACKING STATUS; ACCEPT RECONFIGURATION COMMANDS; PROCESS
TELEMETRY OR CREW COMMANDS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME:

IMPACT:

DATA PRIVACY CODE:

ALARMS/ANNUNCIATIONS - REQUIRED:
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.5.6 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.1 NAME: TIME SOURCE MANAGEMENT
 PREPARED BY: KILLINGBECK REVISD BY: BOWMAN/EASTON
 REVISION: 1 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
 ENTERED DATE: 07/03/85

DESCRIPTION:

SELECT TIME SOURCE DEVICE (GPS, MASTER TIMING UNIT, ETC.) TO BE REFERENCE. ACCEPT MANUAL SOURCE SELECTION COMMAND. DISTRIBUTE REFERENCE TIME VALUE THROUGHOUT ONBOARD NETWORK WITH ONE MSEC MAXIMUM ERROR.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 1 IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.1 NAME: TIME SOURCE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	TIMEFREQ	C	1.000	0.100
I	N	E	GPS TRAK	C	1.000	0.100
O	N	D	NAVSTATE	C	1.000	0.100
O	N	D	CORESTAT	C	1.000	0.100
I	Y	F	4.1.6.5	D	2000000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.2 NAME: TIME UPDATE

PREPARED BY: KILLINGBECK

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 03/12/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 03/26/85

DESCRIPTION:

UPDATE ONBOARD TIME REFERENCE SOURCE AS COMMANDED BY GROUND OPERATORS. INCLUDES INITIALIZATION OF ONBOARD SOURCE. GPS (IF AVAIL.) IS PRIMARY REFERENCE SOURCE, WITH ANY STANDARD DATA PROCESSOR (SDP) CLOCK AS BACKUP SOURCES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

MRWG COMM1014(30) UPDATE TIME

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.2 NAME: TIME UPDATE

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	INPUT/OUTPUT RATE(SEC)	DATA AMOUNT (KBYTES)
O	Y	E	TIMEFREQ	D	2000000.000	0.100
I	Y	F	4.1.6.5	D	2000000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.3 NAME: FREQUENCY SOURCE MANAGEMENT

PREPARED BY: KILLINGBECK

REVISED BY: BOWMAN/EASTON

REVISION: 1

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 07/03/85

DESCRIPTION:

SELECT FREQUENCY SOURCE TO BE DISTRIBUTED VIA DIRECT WIRE TO SUB-SYSTEMS NEEDING A VERY STABLE, PRECISE SOURCE. NEW SOURCE MAY BE SELECTED MANUALLY OR AUTOMATICALLY AT LOSS OF CURRENT SOURCE.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 1

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.3 NAME: FREQUENCY SOURCE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.1.6.5	D	2000000.000	0.100
O	N	E	TIMEFREQ	C	1.000	0.100
O	N	D	CORESTAT	C	1.000	0.100
I	N	E	GPS TRAK	C	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.4 NAME: DEVICE MANAGEMENT

PREPARED BY: KILLINGBECK

REVISION: 0

FUNCTION TYPE: C

REVISED BY: KILLINGBECK

REVISION DATE: 03/12/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 04/09/85

DESCRIPTION:

CONTROL AND MONITOR THE ONBOARD TIME AND FREQUENCY REFERENCE
SOURCE (TURN ON, TURN OFF, RESET, READ STATUS, ETC.)

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.4 NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
		TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
O	Y	E	TIMEFREQ	D	2000000.000	0.100
I	Y	F	4.1.6.5	D	2000000.000	0.100
O	N	D	CORESTAT	C	1.000	0.100
I	N	E	TIMEFREQ	C	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.5 NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: KILLINGBECK

REVISED BY: P.J. BOWMAN

REVISION: 2

REVISION DATE: 05/08/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 05/08/85

DESCRIPTION:

ACCEPT CREW OR GROUND COMMANDS FOR CONFIGURATION MANAGEMENT OF THE TIME MANAGEMENT FUNCTION. ROUTE THE COMMAND TO THE SUB-FUNCTION (UPDATE TIME, SELECT FREQ/TIME SOURCE, POWER ON/OFF, ETC.)

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.5 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.1.6.4	D	2000000.000	0.100
I	Y	F	3.4.2	D	1000000.000	0.100
O	Y	F	4.1.6.1	D	2000000.000	0.100
O	Y	F	4.1.6.2	D	2000000.000	0.100
O	Y	F	4.1.6.3	D	2000000.000	0.100
I	Y	F	2.3.2	D	1000000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.1 NAME: EVALUATE ARRAY PERFORMANCE

PREPARED BY: R.C. WEAVER

REVISED BY: RALEY

REVISION: 2

REVISION DATE: 07/05/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 07/09/85

DESCRIPTION:

MONITOR ARRAY CURRENTS AND VOLTAGES. COMPUTE PERFORMANCE AND COMPARE WITH PREDICTED VALUES TO ASSESS DEGREE OF DEGRADATION OF SOLAR ARRY OUTPUT.

FUNCTION SOURCES: RFP C-4-2.2.3.D

CRITICALITY - RECOVERY TIME: 4

IMPACT: 6

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.1 NAME: EVALUATE ARRAY PERFORMANCE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	PWR STAT	C	60.000	1.000
O	Y	F	4.2.1.5	D	60.000	1.000
I	Y	F	4.2.1.5	D	60.000	0.100
I	N	E	CHRG/REG	C	60.000	6.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.2 NAME: CONFIGURE POWER DISTRIBUTION

PREPARED BY: R.C. WEAVER

REVISED BY: RALEY/BOWMAN

REVISION: 2

REVISION DATE: 07/09/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 07/09/85

DESCRIPTION:

MONITOR LOAD STATUS. AUTOMATIC LOAD AND DISTRIBUTION SWITCH
 POSITION CONTROL TO MATCH LOAD DEMAND TO SOURCE CAPABILITY.
 GENERATE ALERTS. SHED EXCESSIVE LOADS.

FUNCTION SOURCES: RFP C-4-2.2.3.D
 RFP-C-4-2.2.3.F

RFP C-4-3.6.B

CRITICALITY - RECOVERY TIME: 1

IMPACT: 4

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: Y
 REQUIREMENTS:

NUMBER: 5

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-3.6.B PAYLOAD FACILITIES MGMT
 RFP C-4-2.2.3.F RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES
 RFP C-4-2.2.3.D AUTO POWER SYSTEM LOAD CTRL

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.2 NAME: CONFIGURE POWER DISTRIBUTION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.2.1.7	D	100000.000	0.100
I	Y	F	3.4.2	D	10000.000	1.000
I	Y	F	4.2.1.6	D	30.000	0.050
I	Y	F	5.1.2.6	D	1.000	1.000
O	N	D	PWR STAT	C	60.000	10.000
I	N	D	PWR STAT	C	60.000	1.000
I	N	F	4.2.1.3	D	1.000	1.000
O	Y	E	SWITCHGR	D	10000.000	1.000
I	Y	D	SHORTSCH	D	10000.000	1.000
O	N	F	4.2.1.3	D	1.000	1.000
O	N	E	OPERATOR	C	60.000	1.000
I	Y	E	SWITCHGR	C	60.000	36.000
I	N	E	OPERATOR	D	60.000	0.050

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.3 NAME: POWER SOURCE MANAGEMENT
 PREPARED BY: R.C. WEAVER REVISED BY: RALEY/BOWMAN
 REVISION: 2 REVISION DATE: 07/09/85
 FUNCTION TYPE: G PROGRAM PHASE: I,G
 ENTERED DATE: 07/09/85

DESCRIPTION:
 MONITOR SOURCE STATUS. AUTOMATICALLY REGULATE OUTPUT AND ENERGY
 STORAGE UNITS. CONTROL SOURCE SWITCHING AND CONNECTIONS TO MAIN
 POWER BUSES. GENERATE ALERTS.

FUNCTION SOURCES: RFP C-4-2.2.3.D RFP C-4-2.2.3.F

CRITICALITY - RECOVERY TIME: 1 IMPACT: 3

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 3
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.3.F RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES
 RFP C-4-2.2.3.D AUTO POWER SYSTEM LOAD CTRL

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.3 NAME: POWER SOURCE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.2.1.2	D	1.000	1.000
I	Y	F	4.2.1.6	D	30.000	0.050
I	Y	F	4.1.2.6	C	60.000	0.100
I	Y	E	OPERATOR	D	60.000	0.050
I	Y	E	CHRG/REG	C	60.000	1.000
I	Y	E	ENERGYST	C	1.000	3.000
O	Y	F	4.1.2.6	C	60.000	0.100
O	N	E	OPERATOR	C	60.000	1.000
O	Y	E	PWRSWTCH	D	1000000.000	1.000
O	N	D	PWR STAT	C	1.000	6.000
I	Y	F	4.2.1.7	D	100000.000	0.100
I	Y	F	4.2.1.2	D	1.000	1.000
I	Y	D	PWR STAT	C	1.000	6.000
O	Y	E	CHRG/REG	D	1000000.000	1.000
I	Y	E	PWRSWTCH	C	60.000	2.000
O	Y	E	ENERGYST	D	1000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.4 NAME: ARRAY DEPLOYMENT

PREPARED BY: R.C. WEAVER

REVISION: 2

FUNCTION TYPE: C

REVISED BY: RALEY

REVISION DATE: 07/06/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 07/09/85

DESCRIPTION:

RESPOND TO MODE CHANGE COMMANDS TO DEPLOY OR RETRACT THE SOLAR ARRAY
TO THE POSITION REQUIRED FOR PLANNED OPERATIONS.

FUNCTION SOURCES: JSC 18740

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.4 NAME: ARRAY DEPLOYMENT

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	Y	D	MODESTAT	D	10000.000	0.100
I	N	E	SLRARRAY	D	100000.000	0.100
O	N	D	PWR STAT	D	10000.000	0.100
O	Y	E	SLRARRAY	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.5 NAME: PROJECT ENERGY AVAILABLE
PREPARED BY: R.C. WEAVER REVISD BY: RALEY/BOWMAN
REVISION: 2 REVISION DATE: 07/09/85
FUNCTION TYPE: C PROGRAM PHASE: I,G
ENTERED DATE: 07/09/85

DESCRIPTION:
OPERATE ON STORAGE AND ARRAY PERFORMANCE DATA AND ORBIT PARAMETERS
TO PRODUCE ENERGY AVAILABILITY FORECASTS IN SUPPORT OF SHORT TERM
SCHEDULING.

FUNCTION SOURCES: RFP C-4-2.2.3.D

CRITICALITY - RECOVERY TIME: 4 IMPACT: 6

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.5 NAME: PROJECT ENERGY AVAILABLE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	PWR STAT	D	1000.000	1.000
I	N	D	NAVSTATE	D	60.000	1.000
I	Y	F	4.2.1.1	D	60.000	1.000
I	N	D	PWR STAT	D	1000.000	6.000
O	Y	F	4.2.1.1	D	60.000	0.100
I	N	D	EPHEMER	D	60.000	1.000
I	N	D	MASSPROP	D	60.000	0.100

C-4

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.6 NAME: DEVICE MANAGEMENT

PREPARED BY: C. R. EASTON

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 03/27/85

PROGRAM PHASE: I,G,B1

ENTERED DATE: 04/24/85

DESCRIPTION:

PROVIDES FAULT DETECTION AND ISOLATION, REDUNDANCY MANAGEMENT
AND AUTOMATIC RECONFIGURATION OF ELECTRICAL POWER SYSTEM
SENSORS AND EFFECTORS

FUNCTION SOURCES: RFP C-2-3.1.1
RFP C-4-2.1.10.2B

RFP C-4-2.1.9C

CRITICALITY - RECOVERY TIME: 3

IMPACT: 2

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 6

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.6 NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	E	ENERGYST	C	30.000	0.500
I	N	E	SWITCHGR	C	0.100	0.500
I	N	E	CHRG/REG	C	30.000	0.500
I	N	E	SLRARRAY	C	30.000	0.500
O	Y	D	PWR STAT	C	30.000	1.000
O	Y	F	4.2.1.2	D	30.000	0.050
I	N	E	PWRSWTCH	C	0.100	0.500
O	Y	F	4.2.1.3	D	30.000	0.050

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.7 NAME: COMMAND I/F PROCESSING

PREPARED BY: G. R. EASTON

REVISION: 1

FUNCTION TYPE: C

REVISED BY: P.J. BOWMAN

REVISION DATE: 05/08/85

PROGRAM PHASE: I,G,B1

ENTERED DATE: 05/08/85

DESCRIPTION:

ACCEPT ONBOARD OR GROUND OPERATOR COMMANDS FOR POWER SYSTEM
COMMAND, DISPLAYS AND CONTROLS

FUNCTION SOURCES: RFP C-2-3.1.1

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.7 NAME: COMMAND I/F PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	3.4.2	D	100000.000	0.100
O	Y	F	4.2.1.2	D	100000.000	0.100
I	Y	F	2.3.2	D	100000.000	0.100
O	Y	F	4.2.1.3	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.1 NAME: MANAGE THERMAL LOAD

PREPARED BY: D. GRUNDITZ

REVISION: 3

FUNCTION TYPE: C

REVISED BY: BOWMAN/EASTON

REVISION DATE: 06/21/85

PROGRAM PHASE: I

ENTERED DATE: 07/03/85

DESCRIPTION:

CONTROL BUS AND RADIATOR FLUID FLOW TO DISSIPATE CUSTOMER PAYLOAD
AND SPACE STATION THERMAL LOADS.

FUNCTION SOURCES: RFP C-4-2.2.4.1b
REF CONF J8400076

MRWG J8400039

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 3

DOC PARAGRAPH NO. DESCRIPTION

MRWG SAAX0403(28)	MANAGE THERMAL LOAD
RFP C-4-2.2.4.1.B	MANAGE THERMAL LOAD
RFP C-4-3.6.B	PAYLOAD FACILITIES MGMT
MRWG SAAX0307(28)	CONTROL TEMPERATURE

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.1 NAME: MANAGE THERMAL LOAD

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	OPERATOR	C	30.000	1.500
I	Y	E	P/L IFHX	C	1.000	0.900
I	N	E	FLUIDCTL	C	30.000	0.050
I	N	D	TCS STAT	C	30.000	0.500
I	Y	D	SHORTSCH	C	30.000	0.050
I	N	F	4.2.2.2	C	30.000	0.100
I	Y	E	FL LOOPS	C	1.000	0.900
I	Y	F	3.4.2	D	100000.000	0.100
O	N	D	TCS STAT	C	30.000	0.500
O	N	E	FLUIDCTL	C	30.000	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.2 NAME: THERMAL DEVICE MANAGEMENT

PREPARED BY: D. GRUNDITZ

REVISED BY: P.J. BOWMAN

REVISION: 2

REVISION DATE: 05/08/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 05/08/85

DESCRIPTION:

EXPERT MAINTENANCE DATA MANAGEMENT SYSTEM INCLUDES FAULT
DETECTION, REDUNDANCY MANAGEMENT

FUNCTION SOURCES: RFP, MRWG
J8400076

J8400039, CRSS

CRITICALITY - RECOVERY TIME: 3

IMPACT: 2

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.1.9.C MONITORING AND FAULT ISOLATION OF ORU'S

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.2 NAME: THERMAL DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	E	P/L IFHX	C	1.000	0.500
O	N	F	4.2.2.1	C	30.000	0.100
I	N	E	FL LOOPS	C	30.000	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.3 NAME: PROJECT THERMAL LOAD CAPACITY
PREPARED BY: D. GRUNDITZ REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: I
ENTERED DATE: 07/03/85

DESCRIPTION:

DETERMINE AVAILABLE THERMAL LOAD CAPACITY FOR SCHEDULING SUPPORT
BASED ON CURRENT PERFORMANCE AND ORBIT PARAMETERS

FUNCTION SOURCES: RFP, MRWG J8400039 CRSS, REF. CONFIG.
J8400076

CRITICALITY - RECOVERY TIME: 3 IMPACT: 2

DATA PRIVACY CODE:

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-3.6.B PAYLOAD FACILITIES MGMT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.3 NAME: PROJECT THERMAL LOAD CAPACITY

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	NAVSTATE	C	30.000	0.100
I	N	D	MASSPROP	C	30.000	0.100
I	N	D	TCS STAT	C	30.000	0.500
I	N	D	EPHEM	C	30.000	0.100
O	N	D	TCS STAT	C	30.000	0.100

20-JUL-1985.

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.4 NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: C. R. EASTON

REVISED BY: BOWMAN/EASTON

REVISION: 1

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G,B2

ENTERED DATE: 07/03/85

DESCRIPTION:

ACCEPT ONBOARD AND GROUND OPERATOR COMMANDS FOR THERMAL SYSTEM
COMMAND, DISPLAYS, AND CONTROLS

FUNCTION SOURCES: RFP C-2-3.1.1

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.4 NAME: COMMAND INTERFACE PROCESSING

		SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.1 NAME: MECHANISM CONTROL/SAFETY

PREPARED BY: J. DASHIELL

REVISED BY: P.J. BOWMAN

REVISION: 2

REVISION DATE: 05/17/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 05/20/85

DESCRIPTION:

PROVIDES AUTOMATIC AND MANUAL CONTROL OF ALL SPACE STATION STRUCTURE MECHANISMS AND SENSORS/EFFECTORS (SPECIFIC MRMS AND BERTHING/ DOCKING FUNCTIONS IN 4.2.3.2, 4.2.3.3); PROVIDES GENERAL SAFETY TESTS AND SENDS SAFETY WARNING TO OPERATOR

FUNCTION SOURCES: RFP C-4-2.2.2.1.a

C-4-2.2.2.5.e

CRITICALITY - RECOVERY TIME: 1

IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 25

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

DISPLAYS:3 IOC;8 GROWTH; ALL UNDER 4.2.3.5---COMMAND INTERFACE
PROCESSING - GROWTH INCLUDES OMV, OTV MECHANISMS

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.1 NAME: MECHANISM CONTROL/SAFETY

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	N	E	STR MECH	C	2.000	3.000
O	Y	E	STR MECH	D	3600.000	0.100
I	Y	E	OPERATOR	D	3600.000	0.100
O	Y	E	OPERATOR	D	30.000	1.000
O	N	D	CORESTAT	D	3600.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.2 NAME: MRMS OPERATIONS

PREPARED BY: J. DASHIELL

REVISED BY: P.J. BOWMAN

REVISION: 1

REVISION DATE: 05/08/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 05/08/85

DESCRIPTION:

PROVIDES CREW CONTROL OF SPACE STATION MOBIL REMOTE MANIPULATOR SYSTEM; INITIAL CAPABILITY FOR B1 FLIGHT IN NSTS, LATER FROM WITHIN HABITAT MODULE. USAGE: (1) STATION CONSTRUCTION, (2) STATION SERVICING (3) CREW EVA, (4) HOLDING, POSITIONING OBJECTS (FREE FLYERS, MMU, OMV)

FUNCTION SOURCES: RFP C-4-2.2.2.E

C-4-3.5.1B

CRITICALITY - RECOVERY TIME: 1

IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 10

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP	C-4-2.2.7.1.M	SUPPORT BERTHING, DOCKING, & SEPERATION OPS
RFP	C-4-2.2.7.1.0	PROVIDE FOR COOP OPS BETWEEN AC AND RMS
RFP	C-4-2.2.2.5.e	PROVIDE RMS CTL, MODES, DATA, COMM, & CREW IF
RFP	C-4-3.5.1b	BERTH, HOLD, POSITION FREE FLIERS
RFP	C-3-2.1.1	SSPE BERTHING & SERVICING
MRWG	TDMX2060(46)	RMS OPERATIONS

ADDITIONAL REQUIREMENTS:

TDMX 2060 (46); TWO DISPLAYS SIZED UNDER 4.2.3.5

-IOC: ONE MRMS ARM & LOCATION CONTROL & 2 DISPLAYS

-GROWTH: 2 MRMS SYSTEMS & 4 DISPLAYS

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.2 NAME: MRMS OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	OPERATOR	D	2.000	1.000
I	N	F	4.2.3.3	C	2.000	0.010
O	Y	E	MRMS	D	2.000	0.100
I	N	E	MRMS	C	0.020	0.050
I	Y	E	OPERATOR	D	2.000	0.100
O	N	D	CORESTAT	C	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.3 NAME: MANAGE DOCKING/BERTHING
 PREPARED BY: J. DASHIELL REVISED BY: P.J. BOWMAN
 REVISION: 2 REVISION DATE: 05/17/85
 FUNCTION TYPE: C PROGRAM PHASE: B2,I,G
 ENTERED DATE: 05/20/85

DESCRIPTION:
 PROVIDES SPACE STATION CREW WITH DATA AND CONTROLS TO MANAGE
 DOCKING OR BERTHING OR SEPARATION OF NSTS, SSPE'S AND FREE
 FLYERS

FUNCTION SOURCES: RFP C-3-2.1.I, C-4-2.2.7.1.M

CRITICALITY - RECOVERY TIME: 1 IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 10
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 MRWG TDMX2560(37) DOCKING OPERATIONS

ADDITIONAL REQUIREMENTS:
 -DISPLAYS: IOC 2; GROWTH 6; ALL SIZED UNDER 4.2.3.5
 -GROWTH INCLUDES OMV AND OTV REQUIREMENTS

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.3 NAME: MANAGE DOCKING/BERTHING

TYPE		SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
I	N	E	PROXTRAK	C	1.000	0.050
I	Y	E	PORT	D	1.000	0.010
O	Y	E	PORT	D	1.000	0.010
O	Y	E	OPERATOR	D	2.000	1.000
I	Y	E	OPERATOR	D	2.000	0.100
O	N	F	4.2.3.2	C	2.000	0.010
O	Y	E	OBJ/COFL	D	10.000	0.010
O	N	D	CORESTAT	C	1.000	0.150

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.4 NAME: DEVICE MANAGEMENT

PREPARED BY: J. DASHIELL

REVISED BY: BOWMAN/EASTON

REVISION: 2

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 07/03/85

DESCRIPTION:

PROVIDES MEANS OF CONTROLLING H/W DEVICES ASSOCIATED WITH 4.2.3;

INCLUDES: (1) STRUCTURES/MECHANISMS AND SENSORS/EFFECTORS, (2)

MRMS H/W -- ARM, MOBIL PLATFORM, (3) DOCKING DETECTION, LATCHING,

(4) PROXIMITY TRACKER H/W

FUNCTION SOURCES: SHUTTLE APPLICATION
EXPERIENCE

REQUIREMENTS/DESIGN

CRITICALITY - RECOVERY TIME: 1

IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 10

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

THIS CODE/DATA PARALLELS THE SOP'S DEVELOPED FOR SHUTTLE SYSTEMS

-CONTROL OF H/W, TESTING ETC. OF ALL DEVICES ASSOCIATED WITH

4.2.3

-DISPLAYS: IOC 5, GROWTH 15

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.4 NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.5 NAME: COMMAND INTERFACE PROCESSING
PREPARED BY: J. DASHIELL REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 07/03/85

DESCRIPTION:

PTOVIDES APPLICATION S/W TO INTERFACE WITH SPACE STATION MPAC'S
AND GROUND TELEMETRY FOR DISPLAYS ASSOCIATED WITH 4.2.3 AND
CONTROL OF 4.2.3 FUNCTIONS.

FUNCTION SOURCES: SHUTTLE DESIGN EXPERIENCE

CRITICALITY - RECOVERY TIME: 1 IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 10
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

-ALL DISPLAY SIZING FOR 4.2.3
-TOTAL DISPLAYS: IOC 12; GROWTH 33
-MAX NUMBER DISPLAYS UP: IOC 4, GROWTH 10
-HALF GRAPHICS, HALF TEXT

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.5 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.1 NAME: CONTROL ATMOS. PRESSURE & COMPOSITION
 PREPARED BY: T. F. GALLO REVISED BY: BOWMAN/EASTON
 REVISION: 4 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: I,G
 ENTERED DATE: 07/03/85

DESCRIPTION:

CONTROL CABIN PRESS & ATMOS O2/N2 & CO2, HAZARDOUS
 GASSES AND VAPORS CONTROL

FUNCTION SOURCES: RFP C-3-2.2A, C-4-2.1.3.3,
 C-4-2.1.1.1.2.A1 C-4-2.2.9.1.A

CRITICALITY - RECOVERY TIME: 3 IMPACT: 1

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 5
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-2.2.9.2.B.1	MIN & MAX LEVELS OF TEMP & HUMIDITY PER TABLE 6-4-IX
RFP	C-4-2.2.9.1.A	MONITOR AND REGULATE MODULE ATMOS. GASES
RFP	C-4-2.1.3.3	INTERNAL/EXTERNAL CONTAMINATION MONITOR
RFP	C422.10.1J.1.A	DETECT & CTRL OF INTERNAL ATMOS. CONTAM
MRWG	SAAX0302(24)	CONTROL PRESSURIZED MODULE ATM COMP
RFP	C-4-2.1.11.2.A1	INDEPENDENT EMERGENCY DETECT & CTRL
RFP	C-4-2.1.11.2.E	DETECT, MONITOR, CONTROL HAZARDOUS FLUIDS
RFP	C-3-2.2.A	INDEPENDENT EMERGENCY DETECTION & CTRL
RFP	C422.10.1J.1.C	DETECTION, CORRECTION, & WARNING FOR SS ATMOS CONTAMINATION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.1 NAME: CONTROL ATMOS. PRESSURE & COMPOSITION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	ATM CTL	C	0.017	0.010
I	Y	E	ATM CTL	C	0.017	0.010
O	Y	F	4.2.4.2	C	0.017	0.010
I	Y	E	AIR TEMP	C	0.017	0.010
I	Y	E	AIR TOX	C	0.017	0.010
I	Y	E	CABNPRES	C	1.000	0.010
O	N	D	ECLSSTAT	C	1.000	0.200
O	Y	E	OPERATOR	C	0.017	0.100
I	Y	F	4.2.4.2	C	0.017	0.010
I	Y	E	OX LEVEL	C	0.017	0.010
O	Y	E	AIRMAKE	C	0.017	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.2 NAME: CONTROL TEMP/HUMIDITY
 PREPARED BY: T. F. GALLO REVISED BY: BOWMAN/EASTON
 REVISION: 2 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: I,G
 ENTERED DATE: 07/03/85

DESCRIPTION:
 CONTROL CABIN TEMP & HUMIDITY AND AIR CIRCULATION CONTROL

FUNCTION SOURCES: RFP C-4-2.2.9.1.B

CRITICALITY - RECOVERY TIME: 3 IMPACT: 1

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 5
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-2.2.9.2b2	CREW MAY SET MODULE TEMP & HUMIDITY
RFP	C-4-2.2.9.1.B	MODULE TEMP & HUMIDITY CTRL
RFP	C-4-2.2.9.2.B.1	MIN & MAX LEVELS OF TEMP & HUMIDITY PER TABLE 6-4-IX

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.2 NAME: CONTROL TEMP/HUMIDITY

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	HUMIDITY	C	0.017	0.010
I	Y	F	4.2.4.1	C	0.017	0.010
O	Y	E	ATM CTL	C	0.017	0.010
I	Y	E	ATM CTL	C	0.017	0.010
I	Y	E	AIR TEMP	C	0.017	0.010
O	Y	F	4.2.4.1	C	0.017	0.010
O	Y	E	AIRCIRC	C	0.017	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.3 NAME: POTABLE WATER MANAGEMENT

PREPARED BY: T. F. GALLO

REVISED BY: BOWMAN/EASTON

REVISION: 3

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 07/03/85

DESCRIPTION:

CONTROL/STATUS OF POTABLE WATER SYSTEM

FUNCTION SOURCES: RFP C-4-2.2.9.1.D

CRITICALITY - RECOVERY TIME: 3

IMPACT: 1

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 2

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-3-2.2.A INDEPENDENT EMERGENCY DETECTION & CTRL

RFP C-4-2.2.9.1.D WATER QUALITY MGMT

RFP C-4-2.1.11.2.A1 INDEPENDENT EMERGENCY DETECT & CTRL

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.3 NAME: POTABLE WATER MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
O	Y	E	OPERATOR	C	0.017	0.100
I	Y	E	OPERATOR	D	0.017	0.100
I	Y	E	POT SUPL	C	0.017	0.010
O	Y	D	ECLSSTAT	C	1.000	0.100
O	Y	E	POT SUPL	C	0.017	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.4 NAME: GREY WATER MANAGEMENT
PREPARED BY: T. F. GALLO REVISD BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: I,G
ENTERED DATE: 07/03/85

DESCRIPTION:
CONTROL/STATUS OF GREY WATER SYSTEM

FUNCTION SOURCES: RFP C-4-2.2.9.1.D

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-2.2.9.1.D	WATER QUALITY MGMT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.4 NAME: GREY WATER MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	OPERATOR	D	0.017	0.100
O	Y	D	ECLSSTAT	C	0.017	0.100
O	Y	E	OPERATOR	C	0.017	0.100
I	Y	E	GREYWATR	C	0.017	0.010
O	Y	E	GREYWATR	C	0.017	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.5 NAME: FIRE DETECTION AND CONTROL

PREPARED BY: T. F. GALLO

REVISED BY: BOWMAN/EASTON

REVISION: 2

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 07/03/85

DESCRIPTION:

DETECT AND EXTINGUISH FIRES

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 1

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 5

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.1.11.2.A1 INDEPENDENT EMERGENCY DETECT & CTRL
RFP C-4-2.1.11.2.L DETECT AND EXTINGUISH FIRES
RFP C-3-2.2.A INDEPENDENT EMERGENCY DETECTION & CTRL
RFP C-4-2.2.9.1.A PROVIDE FIRE DETECTION & SUPPRESSION
RFP C-4-2.2.9.1.A MONITOR AND REGULATE MODULE ATMOS. GASES

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.5 NAME: FIRE DETECTION AND CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	FIREDECT	C	1.000	0.100
O	Y	E	FIRE CTL	C	1.000	0.100
O	Y	F	4.3.2.1	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.6 NAME: DEVICE MANAGEMENT

PREPARED BY: C. R. EASTON

REVISION: 1

FUNCTION TYPE: C

REVISED BY: BOWMAN/EASTON

REVISION DATE: 06/21/85

PROGRAM PHASE: I,G,B3

ENTERED DATE: 07/03/85

DESCRIPTION:

PROVIDES FAULT DETECTION AND ISOLATION, REDUNDANCY MANAGEMENT
AND AUTOMATIC RECONFIGURATION OF ECLSS SENSORS AND EFFECTORS

FUNCTION SOURCES: RFP C-4-2.1.10.2B

C-4-2.1.9C

CRITICALITY - RECOVERY TIME: 3

IMPACT: 1

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 5

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.6 NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.7 NAME: COMMAND I/F PROCESSING - ECLSS
PREPARED BY: C. R. EASTON REVISED BY: BOWMAN/EASTON
REVISION: 1 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: I.G.B4
ENTERED DATE: 07/03/85

DESCRIPTION:
ACCEPT ONBOARD AND GROUND OPERATOR COMMANDS FOR ECLSS COMMAND
DISPLAYS, AND CONTROLS

FUNCTION SOURCES: RFP C-2-3.1.1

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 1
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.4.7 NAME: COMMAND I/F PROCESSING - ECLSS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
-----					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.1 NAME: COMMUNICATION NETWORK CONTROL

PREPARED BY: R. RADECKI

REVISED BY: P. J. BOWMAN

REVISION: 2

REVISION DATE: 04/25/85

FUNCTION TYPE: C

PROGRAM PHASE: I

ENTERED DATE: 04/25/85

DESCRIPTION:

MAINTAIN SCHEDULES FOR ALL COMMUNICATIONS LINKS, AND PRIORITIES FOR CONNECTIONS. SCHEDULE PHYSICAL RESOURCES TO MEET SCHEDULE. CONTROL LINK SIGNALLING AND PROTOCOL MESSAGES IN REAL TIME. MANAGE TRAFFIC FLOW IN REAL TIME.

FUNCTION SOURCES: RFP C-4 2.1.13
CRSS 1.1.9

RFP C-4-2.2.6.1
CRSS 7.2.2.1

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

CRSS 6.1.1	SUPPORT CUSTOMER PAYLOAD COMMAND
CRSS 5.4.2	PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE
CRSS 0.3	COMMUNICATE PRIMARILY THROUGH TDRSS
CRSS 0.3	COP TRANSMIT/RECEIVE THROUGH TDRSS
CRSS 1.2.1	SUPPORT PEAK AND AVER. DATA RATES FROM PHASE B RFP
CRSS 1.2.3	SUPP. AGGREGATE END-TO-END RATES THROUGHPUT PER PHASE B RFP
CRSS 5.2.10	SUPPORT TELECONFERENCING WITH SPACE NODE
CRSS 2.2.3.5	PACKET REQ'TS MUST NOT PRECLUDE TDM
RFP C-3-2.6.A	INTRA & EXTRA STATION PERSON TO PERSON COMMUNICATION
CRSS 5.2.3	SUPPORT VIDEO RECORD/PLAYBACK BETWEEN SSP ELEMENTS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.1 NAME: COMMUNICATION NETWORK CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	NTWKPLAN	C	5.000	0.500
O	Y	D	COMMSTAT	C	60.000	2.000
I	Y	F	4.2.5.5	D	60.000	0.100
O	Y	F	4.2.5.2	C	10.000	1.000
I	Y	D	COMMSTAT	C	1.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.2 NAME: COMMUNICATION EQUIPMENT CONTROL
 PREPARED BY: R. RADECKI REVISED BY: P.J. BOWMAN
 REVISION: 3 REVISION DATE: 05/09/85
 FUNCTION TYPE: C PROGRAM PHASE: I,G
 ENTERED DATE: 05/09/85

DESCRIPTION:

INTERFACES TO COMMUNICATIONS HARDWARE AND SEND ON/OFF, MODE CONTROL,
 CONFIGURATION, AND OTHER CONTROL SIGNALS TO EQUIPMENT, INCLUDING
 REAL-TIME SWITCHING TO SUPPORT TRAFFIC FLOW.

FUNCTION SOURCES: SS RFP, SS REF. CONFIG,
 CRSS

CRITICALITY - RECOVERY TIME: 1 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS	5.3.2	SUPPORT AUDIO DIST. TO CUSTOMERS
CRSS	5.3.3	SUPP AUDIO RECORD/PLAYBACK BETWEEN SSP ELEMENTS
CRSS	5.2.1	SUPPORT VIDEO DISTRIBUTION AMONG ELEMENTS
CRSS	5.3.5	SUPPORT TELECONFERENCING WITH SPACE NODE
CRSS	1.1.9	CUSTOMER OPTION FOR REAL TIME P/L INTERACTION
CRSS	5.3.4	SUPPORT AUDIO COMMUNICATION PRIVACY
RFP	C-3-2.6.A	INTRA & EXTRA STATION PERSON TO PERSON COMMUNICATION
CRSS	5.2.4	SUPPORT VIDEO COMMUNICATION PRIVACY
CRSS	5.4.1	PROVIDE DIGITAL DATA COMM AMONG ELEMENTS
CRSS	5.4.2	PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE
CRSS	2.2.3.5	PACKET REQ'TS MUST NOT PRECLUDE TDM
CRSS	5.2.5	SUPPORT DIST OF NTSC VIDEO SIGNALS
CRSS	5.2.2	SUPPORT VIDEO DISTRIBUTION TO CUSTOMER
CRSS	5.3.1	SUPPORT AUDIO DIST. AMONG ELEMENTS
CRSS	5.2.10	SUPPORT TELECONFERENCING WITH SPACE NODE
CRSS	6.1.1	SUPPORT CUSTOMER PAYLOAD COMMAND

ADDITIONAL REQUIREMENTS:

CRSS 1.1.6-SYSTEM IS EXPANSIONABLE; 1.1.9,6.2.1-PROVIDE REAL-TIME
 CONTROL; 8.1.1-SUPPORT HDWE INTERFACE VERIF.; RFP C3-2.2c-PROVIDE
 FAILURE RESTORATION CAPABILITY; RFP C4-2.1.9-SYSTEM SHOULD BE
 MAINTAINABLE

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.2 NAME: COMMUNICATION EQUIPMENT CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.2.5.3	C	10.000	1.000
I	Y	F	4.2.5.4	D	60.000	0.100
O	Y	E	COM EQUIP	C	0.001	0.100
I	Y	F	4.2.5.1	C	10.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.3 NAME: COMMUNICATION EQUIPMENT STATUS MONITORING
 PREPARED BY: R. RADECKI REVISED BY: P.J. BOWMAN
 REVISION: 2 REVISION DATE: 05/09/85
 FUNCTION TYPE: C PROGRAM PHASE: I,G
 ENTERED DATE: 05/09/85

DESCRIPTION:

COLLECT CONFIGURATION, HEALTH, STATUS, DIAGNOSTIC, AND OTHER SIGNALS
 FROM HARDWARE, LOG DATA. FORMAT AND STORE DATA.

FUNCTION SOURCES: SS REF CONFIGURATION
 SS RFP, CRSS

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 7.3.3 MONITOR, PROTECT DATA SYSTEM INTERFACES
 CRSS 2.2.3.3 CUST PROVIDES IMPROVED BIT-ERROR RATES

ADDITIONAL REQUIREMENTS:

CRSS 1.2.2-MEASURE BER; 6.2.1.4-SYSTEM SHOULD BE MODIFIABLE IN
 REAL TIME; 7.3.2-PROVIDE FAULT FINDING RESOURCES; 7.3.3-MONITOR
 ALL INTERFACES; 8.0-PROVIDE VERIFICATION & TEST TOOLS

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.3 NAME: COMMUNICATION EQUIPMENT STATUS MONITORING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	COMEQUIP	C	10.000	1.000
O	Y	F	4.2.5.2	C	10.000	1.000
O	Y	F	4.2.5.4	D	4000.000	1.000
O	N	D	CMONITOR	C	10.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.4 NAME: FAILURE DETECTION & RECOVERY
 PREPARED BY: R. RADECKI REVISED BY: BOWMAN/EASTON
 REVISION: 4 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: I
 ENTERED DATE: 07/03/85

DESCRIPTION:
 EVALUATE SYSTEM MONITOR DATA. GENERATE ALARMS, DEVELOP TRENDS,
 INITIATE AUTOMATIC RECONFIGURATION. IMPLEMENT RECOVERY
 PROCEDURES. GENERATE SYSTEM HEALTH STATUS.

FUNCTION SOURCES: CRSS, SS-RFP SS. REF. CONFIG

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 CRSS 2.2.3.3 CUST PROVIDES IMPROVED BIT-ERROR RATES
 CRSS 7.3.2 DIFFERENTIATE P/L, SSIS FAULTS

ADDITIONAL REQUIREMENTS:
 CRSS 7.1.1-PROVIDE TROUBLESHOOTING/CONTINGENCY PROC; 7.3.2-
 DIFFERENTIATE PAYLOAD/SSIS FAULTS; C3-2.2-PROVIDE FAILSAFE PROC
 FOR CRITICAL FUNCTIONS; 3.1a-MINIMIZE CUST INTERRUPTIONS; 3.2-
 PROVIDE MAINT FEATURES; 3.3-OPTIMIZE AUTOMATION

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.4 NAME: FAILURE DETECTION & RECOVERY

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	CMONITOR	D	10.000	10.000
I	N	D	RECONFIG	D	4000.000	20.000
I	Y	F	4.2.5.5	D	100000.000	1.000
O	N	D	COMMSTAT	D	10.000	1.000
O	Y	F	4.2.5.2	D	60.000	0.100
I	Y	F	4.2.5.3	D	4000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.5 NAME: COMMAND PROCESSING

PREPARED BY: R. RADECKI

REVISED BY: BOWMAN/EASTON

REVISION: 4

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: I

ENTERED DATE: 07/03/85

DESCRIPTION:

AUTHENTICATE COMMANDS TO CST. CONDUCT CONSTRAINT/CONSISTENCY CHECKS. SEND IMPLEMENTATION MESSAGES TO OTHER FUNCTIONS. GENERATE A RESPONSE.

FUNCTION SOURCES: CRSS, SS RFP,

SS REF. CONFIG

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

CRSS 1.1.9 CUSTOMER OPTION FOR REAL TIME P/L INTERACTION

ADDITIONAL REQUIREMENTS:

CRSS 6.1.6-DIFFERENTIATE COMMANDS: RESTRICTED/CONSTRAINED

SS-RFP-C3-2.1a - ACCOMMODATE PROGRESSIVE MODIFICATION

C3-3.3 - OPTIMIZE AUTONOMY & AUTOMATION

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.5 NAME: COMMAND PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.2.5.4	D	100000.000	1.000
I	Y	F	4.2.5.6	D	10.000	0.100
O	Y	F	4.2.5.6	D	10.000	0.100
O	Y	F	4.2.5.7	D	10.000	0.100
O	Y	F	4.2.5.1	D	60.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.6 NAME: COMMUNICATION INTERFACE CONTROL
 PREPARED BY: R. RADECKI REVISED BY: BOWMAN/EASTON
 REVISION: 4 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: I,G
 ENTERED DATE: 07/03/85

DESCRIPTION:
 INTERFACE C&T SYSTEM TO DMS, INCLUDING COMMAND & CONTROL, OTHER
 PROCESSORS, CONTROL DATA BASE, AND SECONDARY MASS STORAGE

FUNCTION SOURCES: CRSS, SS-RFP SS REF. CONFIG

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 CRSS 1.1.9 CUSTOMER OPTION FOR REAL TIME P/L INTERACTION

ADDITIONAL REQUIREMENTS:
 CRSS 1.1.9-SUPPORT REAL-TIME OPERATIONS; C3-2.1a - ACCOMMODATE
 PROGRESSIVE MODIFICATION

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.6 NAME: COMMUNICATION INTERFACE CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.2.5.5	D	10.000	0.100
O	Y	F	4.2.5.7	D	10.000	10.000
I	Y	F	4.1.2.6	C	600.000	0.100
O	Y	F	4.2.5.5	D	10.000	0.100
I	Y	F	3.4.2	D	10.000	0.100
I	N	D	OBJSTATE	C	10.000	10.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.7 NAME: TELEMETRY CONTROL

PREPARED BY: R. RADECKI

REVISED BY: P.J. BOWMAN

REVISION: 5

REVISION DATE: 05/17/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 05/20/85

DESCRIPTION:

COLLECT TELEMETRY DATA FROM ALL SS SENSORS AND PROCESSORS. BUILD
AND SEND TELEMETRY MESSAGES

FUNCTION SOURCES: CRSS, SS-RFP,

SS REF CONFIG

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.7 NAME: TELEMETRY CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.2.3	D	60.000	0.100
I	Y	F	4.2.5.6	D	10.000	10.000
I	Y	D	CMONITOR	D	10.000	10.000
O	Y	F	1.1.3	D	60.000	0.100
I	Y	D	TELTABLE	D	60.000	0.100
I	Y	F	4.2.5.5	D	10.000	0.100
O	Y	F	1.2.3	D	60.000	0.100
I	Y	F	1.1.3	D	60.000	0.100
I	Y	D	COMMSTAT	D	10.000	10.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.1 NAME: CREW PHYSIOLOGICAL MONITORING
PREPARED BY: H.B. KELLY REVISED BY: BOWMAN
REVISION: 1 REVISION DATE: 04/24/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 04/24/85

DESCRIPTION:

RECEIVES INPUT FROM PHYSIOLOGICAL SENSORS, COMPARES THE DATA WITH
NORMAL, STORED VALUES, ORGANIZES THE DATA RELATIVE TO CREW
PERSON & FUNCTION, PERFORMS ONLINE MATHEMATICAL OPERATIONS, AND
PROVIDES DATA STORAGE AND RETRIEVAL

FUNCTION SOURCES: RFP C4-2.2.10.2.G NASA-TM58248
NASA-TM58255

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

MRWG SAAX0303(8) CREW PHYSIOLOGICAL MONITORING
RFP C-4-2.2.5.2.A STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS
RFP C-4-3.10.1c MONITOR CREW EVA PHYSIOLOGICAL DATA ONCE PER MIN
RFP C-4-2.2.10.2.G5 MONITOR CARDIAVASCULAR FUNCTIONS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.1 NAME: CREW PHYSIOLOGICAL MONITORING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	CREWSTAT	D	86400.000	1.000
O	N	D	CREWSTAT	D	86400.000	200.000
I	Y	E	PHYSMON	D	86400.000	200.000
O	Y	F	4.3.1.2	D	500000.000	50.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.2 NAME: MEDICAL DIAGNOSTICS SUPPORT

PREPARED BY: H.B. KELLY

REVISED BY: P. BOWMAN

REVISION: 1

REVISION DATE: 02/22/85

FUNCTION TYPE: D

PROGRAM PHASE: I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

MEDICAL HISTORIES, MEDICAL/PHYSIOLOGICAL MEASUREMENT DATA, AND "LOGIC TREES" FOR DIFFERENTIAL DIAGNOSIS ARE STORED FOR SUBSEQUENT RETRIEVAL, MANIPULATION, AND UTILIZATION AS AIDS IN THE DIAGNOSIS OF CREW MEDICAL PROBLEMS

FUNCTION SOURCES: RFP C4-2.2.10.2G
NASA-TM58255

NASA-TM58248

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: I
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.10g9 INCLUDE MEDICAL CHECKLIST IN MEDICAL DATA BASE
MRWG SAAX0301(5) MEDICAL DIAGNOSTICS SUPPORT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.2 NAME: MEDICAL DIAGNOSTICS SUPPORT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.3.1.1	D	500000.000	50.000
I	N	D	CREWSTAT	D	500000.000	2.000
I	Y	E	CREW	D	500000.000	1.000
O	N	E	CREW	D	500000.000	5.000
O	N	D	CREWSTAT	D	500000.000	50.000
O	Y	F	4.3.1.3	D	500000.000	5.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.3 NAME: TREATMENT SUPPORT

PREPARED BY: H.B. KELLY

REVISED BY: BOWMAN/EASTON

REVISION: 2

REVISION DATE: 06/21/85

FUNCTION TYPE: D

PROGRAM PHASE: I,G

ENTERED DATE: 07/03/85

DESCRIPTION:

PROVIDES CAPABILITY FOR RETRIEVAL OF CREW MEDICAL HISTORIES,
TREATMENT PROC & CHECKLISTS, & SUPPLY INVENTORIES FROM THE MEDICAL
DATABASE FOR USE IN SUPPORT OF MEDICAL TREATMENT ACTIVITIES, USES
CONSULTATION WITH GROUND SPECIALISTS

FUNCTION SOURCES: RFP C4-2.2.10.2.G
NASA-TM58255

NASA-TM58248

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C4-2.2.10.2.G.2 DOWNLINK OF DIAGNOSTIC IMAGES

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.3 NAME: TREATMENT SUPPORT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.3.1.2	D	500000.000	5.000
O	N	E	CREW	D	500000.000	5.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.4 NAME: NUTRITION ANALYSIS

PREPARED BY: H. B. KELLY

REVISED BY: P.J. BOWMAN

REVISION: 1

REVISION DATE: 02/22/85

FUNCTION TYPE: D

PROGRAM PHASE: I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

NUTRITIONAL REQUIREMENTS FOR INDIVIDUAL CREWMEN DETERMINED FROM SSDS ASSESSMENT OF VALUES FROM CREWMAN WASTE AND BLOOD ANALYSES, ENERGY EXPENDITURES DERIVED FROM BOTH PREDETERMINED AND MEASURED ENERGY COST OF OPERATIONAL TASKS, AND CALORIC AND OTHER NUTRIENT INTAKE CHARAC

FUNCTION SOURCES: RFP C4-2.2.10.2.G
NASA-TM58255

NASA-TM58248

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.10.2g7 PERFORM METABOLIC ANALYSIS

MRWG SAAX0301(8) NUTRITION ANALYSIS

RFP C-4-2.2.11.2A6 CONTROL AIRLOCK PRESS FROM SS, AIRLOCK & OUTSIDE

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.4 NAME: NUTRITION ANALYSIS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	CREWSTAT	D	500000.000	0.300
I	Y	E	WASTE AN	D	500000.000	1.000
I	N	D	CREWSTAT	D	500000.000	2.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.5 NAME: EXERCISE PLANNER

PREPARED BY: H.B. KELLY

REVISION: 1

FUNCTION TYPE: D

REVISED BY: P.J. BOWMAN

REVISION DATE: 02/22/85

PROGRAM PHASE: I,G

ENTERED DATE: 04/24/85

DESCRIPTION:

AN ESTIMATE OF THE MAGNITUDE AND CHARACTERISTICS OF PHYSICAL CONDITIONING DERIVED FROM A CREWMAN'S DAILY OPERATIONAL TASKS WILL BE USED AS THE BASIS FOR THE DEVELOPMENT OF DAILY EXERCISE REGIEMS NEEDED AS CONDITIONING SUPPLEMENTS.

FUNCTION SOURCES: RFP C4-2.2.10.2G
NASA-TM58255

NASA-TM 58248

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.10.2g13 USE EXERCISE AS A PHYSIOLOGICAL COUNTERMEASURE

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.5 NAME: EXERCISE PLANNER

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	INPUT/OUTPUT RATE(SEC)	DATA AMOUNT (KBYTES)
I	N	D	CREWTASK	D	86400.000	0.200
O	N	D	CREWSTAT	D	86400.000	0.500
I	N	D	CREWSTAT	D	500000.000	0.300

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.6 NAME: PHYSIOLOGICAL DATA TRANSFORMATION & ANALYSIS
PREPARED BY: H.B. KELLY REVISD BY: P.J. BOWMAN
REVISION: 1 REVISION DATE: 04/24/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 04/24/85

DESCRIPTION:

VALUES OF DERIVED PARAMETERS DETERMINED BY TRANSFORMATION OF ONLINE
DATA FROM PHYSIOLOGICAL SENSORS. 2) VARIOUS ANALYSES PERFORMED BY
STORED DATA TO ENHANCE UNDERSTANDING OF OBSERVED FUNCTIONS

FUNCTION SOURCES: RFP C4-2.2.10.2.G NASA-TM58248
NASA-TM58255

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.10.2g5 MEASURE CARDIAC OUTPUT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.6 NAME: PHYSIOLOGICAL DATA TRANSFORMATION & ANALYSIS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	WASTE AN	D	500000.000	1.000
I	Y	E	PHYSMON	D	86400.000	50.000
O	N	D	CREWSTAT	D	86400.000	50.000
I	N	D	CREWSTAT	D	86400.000	5.000

SSDS FUNCTIONAL DATA SHEET

DESCRIPTION:
ACCEPT ONBOARD OR GROUND OPERATOR COMMANDS FOR HEALTH
MAINTENANCE SYSTEM COMMAND, DISPLAYS AND CONTROLS

FUNCTION SOURCES: RFP C-2-3.1.1

CRITICALITY - RECOVERY TIME: 3 IMPACT: 2

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 1
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
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97	97	97
98	98	98
99	99	99
100	100	100

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.1.7 NAME: COMMAND I/F PROCESSING - COMM

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
						0.000
						0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.1 NAME: CAUTIONS AND WARNINGS

PREPARED BY: G.GERSHZOHN

REVISED BY: BOWMAN/EASTON

REVISION: 3

REVISION DATE: 06/21/85

FUNCTION TYPE: U

PROGRAM PHASE: I,G,B3

ENTERED DATE: 07/03/85

DESCRIPTION:

ANNUNCIATION OF CAUTION AND WARNING MESSAGES

FUNCTION SOURCES: RFP C-4-2.1.11.1 RFP C-4-2.1.11.2.C
 RFP C-4-2.2.5.3.C.4 RFP C-4-3.10.1.C

CRITICALITY - RECOVERY TIME: 1

IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
 REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

RFP	C422.10.1J.1.C	DETECTION, CORRECTION, & WARNING FOR SS ATMOS CONTAMINATION
RFP	C-4-2.1.11.1	HAZARD CTRL BY WARNING DEV, SPECIAL PROC, EMERGENCY DEVICES
RFP	C-4-2.2.11.1e	SUPPORT EMU DECONTAMINATION
RFP	C-4-2.1.10.2.B	REDUNDANCY MGMT. & STATUS
RFP	C-4-2.1.11.2.C	CRITICAL SYSTEM FAILURE NOTIFICATION
RFP	C-4-3.10.1c	NOTIFY CREW OF EMU WARNINGS
RFP	C-4-2.1.11.2.E	DETECT, MONITOR, CONTROL HAZARDOUS FLUIDS
CRSS	5.4.5	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA
RFP	C-4-2.2.5.3C4	ANNUN. OF CATASTROPHIC FAILURES VIA MPAC
RFP	C-4-2.2.7.1.F	PROVIDE WARNING & COMMAND FOR UNSAFE SSPE TRAFFIC CONDITIONS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.1 NAME: CAUTIONS AND WARNINGS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	CORESTAT	D	8640.000	0.100
I	Y	F	4.5.1	D	8640.000	0.100
I	Y	F	4.5.2	D	8640.000	0.100
I	Y	F	4.2.4.5	D	100000.000	0.100
I	Y	F	4.5.3	D	8640.000	0.100
I	Y	F	4.5.5	D	86400.000	0.200
O	Y	E	CREW	D	8640.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.2 NAME: ABNORMAL AND EMERGENCY PROCEDURES
 PREPARED BY: G.GERSHZOHN REVISED BY: BOWMAN/EASTON
 REVISION: 3 REVISION DATE: 06/21/85
 FUNCTION TYPE: U PROGRAM PHASE: I,G,B3
 ENTERED DATE: 07/03/85

DESCRIPTION:
 SELECTION AND DISPLAY OF APPROPRIATE ABNORMAL OR
 EMERGENCY PROCEDURES DUE TO EXISTENCE OF A CAUTION OR
 WARNING CONDITION, RESPECTIVELY

FUNCTION SOURCES: RFP C-3-2.3.B RFP C-4-2.1.11.2.A.1
 RFP C-4-2.1.11.4.A RFP C-4-2.2.7.1.R

CRITICALITY - RECOVERY TIME: 1 IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 4
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-3-2.2.A	INDEPENDENT EMERGENCY DETECTION & CTRL
RFP	C-4-3.2.3	OMV OPS CTRL & SAFETY
RFP	C-4-3.5.4	SS CTRL & SAFETY OF FF, SATELLITES DURING PROX OPS
RFP	C-4-2.1.11.2.A1	INDEPENDENT EMERGENCY DETECT & CTRL
RFP	C-3-3.3b	MANUAL OVERRIDES, INHIBITS OF AUTOMATIC FUNCTIONS
RFP	C-4-3.3.3	OTV OPERATIONS CONTROL & SAFETY
CRSS	7.1.1	CRITICAL/CONTINGENCY PROCEDURE SUPPORT
RFP	C-4-2.2.7.1.R	PERFORM COLLISION AVOIDANCE MANUVERS
RFP	C-4-2.1.11.4.a	CREW ABLE TO OVERRIDE AUTOMATIC SAFING

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.2 NAME: ABNORMAL AND EMERGENCY PROCEDURES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	P/L STAT	D	8640.000	0.500
I	N	D	PROCEDUR	D	8640.000	12.000
I	Y	F	4.5.3	D	8640.000	0.100
O	Y	E	CREW	D	9600.000	12.000
I	Y	F	4.5.5	D	86400.000	0.200
I	Y	F	4.5.1	D	8640.000	0.100
I	N	D	MODESTAT	D	360.000	1.000
O	Y	F	4.3.2.3	D	86400.000	2.000
I	Y	F	4.5.4.1	D	7200.000	1.000
I	Y	F	4.5.2	D	8640.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.3 NAME: AUTOMATIC CONTROL PROCESSING
PREPARED BY: G. GERSHZOHN REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B3,I,G
ENTERED DATE: 07/03/85

DESCRIPTION:
AUTOMATIC CORE SYSTEM CONTROL ACTIVITY IN
RESPONSE TO SPECIFIC SUBSYSTEM MALFUNCTIONS (TBD) AND
EXTRAVEHICULAR HAZARDS (TBD)

FUNCTION SOURCES: RFP C-4-2.1.10.1

CRITICALITY - RECOVERY TIME: 1 IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 11
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.1.10.1 SAFETY CRITICAL SYSTEMS FO/FS/RESTORABLE

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.3 NAME: AUTOMATIC CONTROL PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	SS P/L	D	86400.000	3.000
O	Y	F	4.0	D	86400.000	3.000
I	Y	F	4.3.2.2	D	86400.000	2.000
I	N	D	P/L STAT	D	86400.000	0.500
I	N	D	CORESTAT	D	86400.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.4 NAME: COMMAND INTERFACE PROCESSING
PREPARED BY: G. GERSHZOHN REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: U PROGRAM PHASE: B3,I,G
ENTERED DATE: 07/03/85

DESCRIPTION:
CONTROL BY CREW OF SS OPERATIONS AND SUBSYSTEMS
IN RESPONSE TO AN ABNORMAL OR EMERGENCY CONDITION

FUNCTION SOURCES: RFP CRSS

CRITICALITY - RECOVERY TIME: 1 IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-3-2.2c	FAIL OP/FAIL SAFE/RESTORE-SAFETY, MISSION CRITICAL SYSTEMS
CRSS	5.4.5	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.4 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.3.1 NAME: RECREATION SERVICES

PREPARED BY: A. STEINBERG

REVISION: 3

FUNCTION TYPE: U

REVISED BY: P. J. BOWMAN

REVISION DATE: 04/25/85

PROGRAM PHASE: I,G

ENTERED DATE: 04/25/85

DESCRIPTION:

MANAGEMENT OF RECREATION SERVICES. PROVIDES VARIOUS RECREATIONAL DATA AND DISPLAYS TO THE CREW.

FUNCTION SOURCES: RFP CE-2.6B

RFP C4-2.2.10.2F

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.10.2h AUDIO/VIDEO ENTERTAINMENT REQ'D IN EXERCISE AREA

RFP C-4-2.2.6.2.B.1 COMMERCIAL VIDEO FOR CREW REC. & TRAINING

RFP C4.2.2.10.2.D.2 A/V ENTERTAINMENT

RFP C-4-2.2.10.2f AUDIO/VIDEO ENTERTAINMENT REQ'D IN WARDROOM

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.3.1 NAME: RECREATION SERVICES

		SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
O	N	E	CREW	D	2.000	0.500
I	N	D	RECREATN	D	4000.000	50.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.3.2 NAME: CREW/GROUND COMMUNICATION
PREPARED BY: A. STEINBERG REVISED BY: P. J. BOWMAN
REVISION: 3 REVISION DATE: 04/25/85
FUNCTION TYPE: U PROGRAM PHASE: I,G
ENTERED DATE: 04/25/85

DESCRIPTION:
CREW/GROUND COMM. PROVIDES PERSONAL VOICE, VIDEO WITH GROUND

FUNCTION SOURCES: RFP C4-2.210.2F

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.3.2 NAME: CREW/GROUND COMMUNICATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	CREWSTAT	D	100.000	1.000
O	Y	D	CREWSTAT	D	100.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.3.3 NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: C. R. EASTON

REVISED BY: P.J. BOWMAN

REVISION: 1

REVISION DATE: 05/09/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G,B5

ENTERED DATE: 05/09/85

DESCRIPTION:

ACCEPT ONBOARD OPERATOR COMMANDS FOR HABITABILITY SYSTEM

COMMAN, DISPLAYS AND CONTROLS

FUNCTION SOURCES: RFP C-2-3.1.1

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 1

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.3.3 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION TYPE CODE	INPUT/OUTPUT CODE RATE(SEC)	DATA AMOUNT (KBYTES)
			0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.1 NAME: EMU CONTAMINATION CONTROL
PREPARED BY: D.N. SCHILLER REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: I
ENTERED DATE: 07/03/85

DESCRIPTION:
CHECKS CONTAMINATION LEVELS IN AIRLOCK;
PROVIDES EMU DECONTAMINATION INSTRUCTIONS TO EVA CREW
WHEN NECESSARY. PROVIDES CONTAMINATION WARNING.

FUNCTION SOURCES: RFP C-4-2.2.11.1 E

CRITICALITY - RECOVERY TIME: 3 IMPACT: 3

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.11.1e SUPPORT EMU DECONTAMINATION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.1 NAME: EMU CONTAMINATION CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	EVA STAT	D	1.000	0.100
I	Y	F	4.3.4.9	C	30.000	0.010
O	Y	E	OPERATOR	D	1.000	0.020
O	Y	E	EVA CREW	D	100000.000	2.000
I	N	D	PROCEDUR	D	100000.000	10.000
I	Y	E	CONTAMSR	D	1.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.2 NAME: EMU MONITOR AND MAINTENANCE
 PREPARED BY: D.N. SCHILLER REVISED BY: BOWMAN/EASTON
 REVISION: 3 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: I
 ENTERED DATE: 07/03/85

DESCRIPTION:
 CHECKS-OUT AND SERVICES THE EMU AUTOMATICALLY

FUNCTION SOURCES: RFP C-4-2.2.9.2 F RFP C-4-2.2.22.2 B
 RFP C-4-3.10

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-2.2.9.1.F	SERVICE & C/O OF MMU'S & EMU'S
RFP	C-4-3.10	EMU, MMU AUTOMATIC SERVICING
RFP	C-4-3.10.1a	EMU SUIT CHECKOUT
RFP	C4-2.2.11.2.B.2	AUTOMATIC SERVICING OF MMU & EMU EQUIP

ADDITIONAL REQUIREMENTS:
 RFP PARAGRAPH C-4-2.
 12 HRS W/O HUMAN INT
 RESERVICING CAPABILI
 PROVIDED; 10 RESERV

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.2 NAME: EMU MONITOR AND MAINTENANCE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	MAINTLOG	D	100000.000	1.000
O	N	D	EVA STAT	D	100.000	0.100
I	Y	E	EMU	D	5.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.3 NAME: MMU MONITOR AND MAINTENANCE
PREPARED BY: D.N. SCHILLER REVISED BY: BOWMAN/EASTON
REVISION: 3 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: I
ENTERED DATE: 07/03/85

DESCRIPTION:
CHECKS-OUT AND SERVICES THE MMU AUTOMATICALLY

FUNCTION SOURCES: RFP C-4-2.2.9.1.F RFP C-4-2.2.11.2.B
RFP C-4-3.10

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C4-2.2.11.2.B.2 AUTOMATIC SERVICING OF MMU & EMU EQUIP
RFP C-4-2.2.9.1.F SERVICE & C/O OF MMU'S & EMU'S
RFP C-4-3.10 EMU, MMU AUTOMATIC SERVICING

ADDITIONAL REQUIREMENTS:
RFP PARAGRAPH C-4-2.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.3 NAME: MMU MONITOR AND MAINTENANCE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	MAINTLOG	D	100000.000	1.000
O	N	D	EVA STAT	D	100.000	0.100
I	Y	E	MMU	D	5.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.4 NAME: SAFETY INTERLOCK MONITOR & CONTROL
PREPARED BY: D.N. SCHILLER REVISION: 3
FUNCTION TYPE: C

REVISED BY: BOWMAN/EASTON
REVISION DATE: 06/21/85
PROGRAM PHASE: I
ENTERED DATE: 07/03/85

DESCRIPTION:
INHIBITS RCS FIRINGS AND TBD OPERATIONS DURING
EVA ACTIVITY FOR SAFETY PURPOSES.

FUNCTION SOURCES: RFP C-3-2.4.F RFP C-4-2.2.7.1.Q

CRITICALITY - RECOVERY TIME: 1 IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 1
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-3-2.4.F COOP OPS WITH PLATFORM/PAYLOAD
RFP C-4-2.2.7.1.Q PROVIDE RCS INHIBITS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.4 NAME: SAFETY INTERLOCK MONITOR & CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	OPERATOR	D	10000.000	0.010
O	N	D	MODESTAT	D	1000000.000	0.050
I	Y	E	OPERATOR	D	10000.000	0.002

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.5 NAME: EVA REAL TIME MONITOR & CONTROL
 PREPARED BY: D.N. SCHILLER REVISION: 3
 FUNCTION TYPE: C REVISION DATE: 06/21/85
 PROGRAM PHASE: I
 ENTERED DATE: 07/03/85

DESCRIPTION:
 MONITORS EVA AND STATUS OF EMU AND MMU

FUNCTION SOURCES: RFP C-4-2.2.6.2.B

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-3.10.1G ONCE PER MIN DATA TRANSMISSION FROM EMU
 RFP C-4-2.2.6.2b2 ONE-WAY TV MONITORING OF EVA ACTIVITIES
 RFP C-4-2.2.6.2.C C & T BETWEEN SS AND INTEROPERATING ELEMENTS

ADDITIONAL REQUIREMENTS:

RFP PARAGRAPH C-4-2.2.6.2.B: THE C&T SYSTEM SHALL PROVIDE ONE-WAY STANDARD TV MONITORING FROM TH EMU. NO DATA FLOW IS INCLUDED IN THIS CLOSED CIRCUIT TV FUNCTION.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.5 NAME: EVA REAL TIME MONITOR & CONTROL

		SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
O	Y	E	OPERATOR	C	60.000	0.020
I	Y	F	4.3.4.9	C	30.000	0.010
O	N	D	EVA STAT	C	2.000	0.100
I	Y	E	EMU	C	60.000	0.010
I	Y	E	MMU	C	60.000	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.6 NAME: EVA VISUAL INFORMATION
 PREPARED BY: D.N.SCHILLER REVISED BY: BOWMAN/EASTON
 REVISION: 4 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: I
 ENTERED DATE: 07/03/85

DESCRIPTION:
 PROVIDES HEADS-UP IMAGE DISPLAY TO EVA CREW;
 INCLUDES AUDIO LINK

FUNCTION SOURCES: RFP C-4-3.10.1.B

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 RFP C-4-3.10.1.b IMAGE DISPLAYS CONTROLLED BY EVA CREWMEN
 RFP C-4-3.10.16 6-IMAGE/MIN DISPLAY W/AUDIO EXPLANATION FOR EVA

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.6 NAME: EVA VISUAL INFORMATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	EVA CREW	D	30.000	0.020
O	Y	E	EVA CREW	D	2.000	10.000
I	Y	F	4.3.5.2	D	30.000	1.000
I	Y	E	OPERATOR	D	1000.000	0.050
I	Y	F	4.3.5.1	D	30.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.7 NAME: AIRLOCK ATM. PRESS. & COMP. CO
PREPARED BY: D.N.SCHILLER REVISED BY: P.J. BOWMAN
REVISION: 1 REVISION DATE: 05/09/85
FUNCTION TYPE: C PROGRAM PHASE: I
ENTERED DATE: 05/09/85

DESCRIPTION:
CONTROLS PRESSURE AND AIR COMPOSITION IN AIRLOCKS
TO WITHIN SPECIFIED ALLOWABLE RANGES.

FUNCTION SOURCES: RFP C-4-2.2.11.2.A.6 RFP C-4-2.2.11.2.A.7

CRITICALITY - RECOVERY TIME: 1 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-2.2.11.1e	SUPPORT EMU DECONTAMINATION
RFP	C-4-2.2.11.2a6	CTRL AIRLOCK PRES/DEPRES RATE TO 0.1 PSI/SEC NORM, 1 PSI/SEC
RFP	C-4-2.2.11.2a7	HYPERTARIC AIRLOCK CTL, PRES UP TO 5 ATM, 0.2 FROM 3 PSI MIN

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.7 NAME: AIRLOCK ATM. PRESS. & COMP. CO

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	OPERATOR	D	1.000	0.005
I	Y	F	4.3.4.9	C	30.000	0.010
I	Y	E	EVA CREW	D	1.000	0.010
O	N	E	AIRLKCTL	C	20.000	0.050
I	Y	E	OPERATOR	D	1.000	0.010
I	Y	E	PRESCOMP	C	20.000	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.8 NAME: AIRLOCK TEMP & HUM. CONTROL
PREPARED BY: D.N.SCHILLER REVISED BY: P.J. BOWMAN
REVISION: 1 REVISION DATE: 05/09/85
FUNCTION TYPE: C PROGRAM PHASE: 1
ENTERED DATE: 05/09/85

DESCRIPTION:
CONTROLS TEMPERATURE AND HUMIDITY IN AIRLOCKS TO
WITHIN SPECIFIED LEVELS

FUNCTION SOURCES: RFP C-4-2.2.9.2.B.1 RFP C-4-2.2.9.2.B.2

CRITICALITY - RECOVERY TIME: 1 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.9.2.B.1 MIN & MAX LEVELS OF TEMP & HUMIDITY PER TABLE 6-4-IX
RFP C-4-2.2.9.2b2 CREW MAY SET MODULE TEMP & HUMIDITY

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.8 NAME: AIRLOCK TEMP & HUM. CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
O	Y	E	AIRLKCTL	C	20.000	0.050
I	Y	F	4.3.4.9	C	30.000	0.010
I	Y	E	EVA CREW	D	1.000	0.010
I	Y	E	TEMP/HUM	C	20.000	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.9 NAME: DEVICE MANAGEMENT

PREPARED BY: C. R. EASTON

REVISED BY: BOWMAN/EASTON

REVISION: 2

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G,B1

ENTERED DATE: 07/03/85

DESCRIPTION:

PROVIDES FAULT DETECTION AND ISOLATION, REDUNDANCY MANAGEMENT
AND AUTOMATIC RECONFIGURATION OF EVA SUPPORT SENSORS AND
EFFECTORS

FUNCTION SOURCES: RFP C-4-2.1.10.2B

RFP C-4-2.1.9C

CRITICALITY - RECOVERY TIME: 3

IMPACT: 2

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 5

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.9 NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	E	MMU	C	30.000	0.500
O	Y	F	4.3.4.5	C	30.000	0.010
O	Y	E	EVA CREW	D	10000.000	1.000
I	N	E	TEMP/HUM	C	30.000	0.100
I	N	E	CONTAMSR	C	30.000	0.100
O	Y	D	EVA STAT	C	30.000	0.010
O	Y	F	4.3.4.8	C	30.000	0.010
I	N	E	EMU	C	30.000	0.500
I	N	E	PRESCOMP	C	30.000	0.100
O	Y	F	4.3.4.1	C	30.000	0.010
O	Y	F	4.3.4.7	C	30.000	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.10 NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: C. R. EASTON

REVISED BY: P.J. BOWMAN

REVISION: 2

REVISION DATE: 05/09/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G,B6

ENTERED DATE: 05/09/85

DESCRIPTION:

ACCEPT ONBOARD AND EVA OPERATOR COMMANDS FOR EVA SUPPORT
SYSTEM COMMAND, DISPLAYS AND CONTROLS, INCLUDING EVA CREW
HEADS-UP DISPLAYS

FUNCTION SOURCES: RFP C-2-3.1.1

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.4.10 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.1 NAME: MAINTENANCE AND REPAIR PROCEDURES
PREPARED BY: A. STEINBERG REVISED BY: P.J. BOWMAN
REVISION: 3 REVISION DATE: 05/17/85
FUNCTION TYPE: U PROGRAM PHASE: I,G
ENTERED DATE: 05/20/85

DESCRIPTION:
AVAILABILITY OF PROCEDURES FOR CREW MAINTENANCE AND REPAIR
ACTIVITIES

FUNCTION SOURCES: RFP, CRSS

CRITICALITY - RECOVERY TIME: 3 IMPACT: 3

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.1.2.4 FACILITATE SCHED/UNSCHED SERVICING OF SSPE'S
RFP C-4-2.1.9.C MONITORING AND FAULT ISOLATION OF ORU'S
RFP C-4-2.2.5.3.H SUPPORT SSPE C/O, ANALYSIS, OPS, & MAINTENANCE

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.1 NAME: MAINTENANCE AND REPAIR PROCEDURES

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
O	N	E	OPERATOR	D	1000.000	1.000
O	Y	F	4.3.4.6	D	30.000	1.000
I	N	D	PROCEDUR	D	1000.000	1.000
O	N	F	2.6	D	500000.000	3000.000
O	N	D	MAINTLOG	D	10000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.2 NAME: OPERATIONS PROCEDURES
PREPARED BY: A. STEINBERG REVISED BY: BOWMAN/EASTON
REVISION: 3 REVISION DATE: 06/21/85
FUNCTION TYPE: U PROGRAM PHASE: I,G
ENTERED DATE: 07/03/85

DESCRIPTION:
AVAILABILITY OF PROCEDURES FOR CREW TO CONDUCT NORMAL
OPERATIONS.

FUNCTION SOURCES: RFP, CRSS

CRITICALITY - RECOVERY TIME: 1 IMPACT: 2

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-3-3.2.G	MAINTENANCE INFORMATION RECORD & RETRIEVE
RFP	C-4-2.2.5.3.H	SUPPORT SSPE C/O, ANALYSIS, OPS, & MAINTENANCE
CRSS	4.2.1	ACCESS TO SS PROG ENG OPER'S, ADMIN AND DESCRIPTIVE INFORM

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.2 NAME: OPERATIONS PROCEDURES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	PROCEDUR	D	1000.000	1.000
O	Y	F	4.3.4.6	D	30.000	1.000
O	N	E	OPERATOR	D	1000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.3 NAME: GENERAL DATA PROCESSING SUPPORT
PREPARED BY: C.R. EASTON REVISED BY: BOWMAN
REVISION: 2 REVISION DATE: 03/27/85
FUNCTION TYPE: C PROGRAM PHASE: I,G,B7
ENTERED DATE: 03/28/85

DESCRIPTION:
PROVIDES PROCESSOR RESOURCES FOR GENERAL SUPPORT OF CREW.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.5.2.A STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.3 NAME: GENERAL DATA PROCESSING SUPPORT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	ONBD OPR	D	20.000	0.500
I	N	D	SOFTWARE	D	3600.000	50.000
I	Y	E	ONBD OPR	D	20.000	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.4 NAME: GENERAL PURPOSE PROGRAMMING LANGUAGE
 PREPARED BY: C.R. EASTON/SAYLE REVISED BY: BOWMAN/EASTON
 REVISION: 3 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: I,G,B5
 ENTERED DATE: 07/03/85

DESCRIPTION:
 PROVIDES PROGRAM LANGUAGE SUPPORT FOR ONBOARD SOFTWARE GENERATION
 MODIFICATION, AND UPGRADE. INCLUDES SOFTWARE COMPILATION,
 AUTOMATIC SOFTWARE TEST FEATURES, STANDARDS ADHERENCE, AND
 AUTOMATIC LINKING CAPABILITIES.

FUNCTION SOURCES: RFP C-3-3.2k, RFP C-4-2.2.5.2.a,
 RFP C-4-2.2.5.2.b

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-3-3.2.K	CREW/GROUND MODS TO S/W IN OP. SYSTEM
RFP	C-4-2.2.5.2.A	STD WORKSTATION,PROCESSING,W/P,MAIL,GRAPHICS FUNCTIONS
RFP	C-4-2.2.5.2b	SUPPORT GEN PURPOSE PROGRAMMING LANGUAGE

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.4 NAME: GENERAL PURPOSE PROGRAMMING LANGUAGE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	ONBD OPR	D	20.000	0.500
O	Y	F	4.3.5.5	D	100000.000	50.000
O	N	E	CONSTI/F	D	200000.000	20.000
O	Y	E	ONBD OPR	D	20.000	1.000
I	Y	D	PROGLANG	D	60.000	1.000
O	N	E	SS P/L	D	200000.000	50.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.5 NAME: UPDATE SYSTEM SOFTWARE

PREPARED BY:

REVISED BY:

REVISION: 0

REVISION DATE: 06/12/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 07/03/85

DESCRIPTION:

ACCEPTS NEW OR REVISED CORE OPERATING SOFTWARE AND LOADS INTO
APPROPRIATE PROCESSORS. PROVIDES FOR SOFTWARE TEST AND RECOVERY OF
FORMER SOFTWARE.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE:

ALARMS/ANNUNCIATIONS - REQUIRED:
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.5.5 NAME: UPDATE SYSTEM SOFTWARE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.3.5.4	D	100000.000	50.000
O	N	E	OPERATOR	D	100000.000	5.000
I	Y	E	OPERATOR	D	100000.000	1.000
O	N	E	FLT PROC	D	100000.000	50.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.1 NAME: GROUND TRACK DETERMINATION

PREPARED BY: J. DASHIELL

REVISED BY: BOWMAN/EASTON

REVISION: 3

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 07/05/85

DESCRIPTION:

PROVIDES EARTH GROUND TRK DATA FOR SS CUSTOMER USAGE. SERVICES ARE:
(1) SS SUB-SATELLITE LATITUDE AND LOGITUDE. (2) SPECIFIC INSTRUMENT
LINE-OF-SIGHT LATITUDE & LONGITUDE. BOTH SERVICES ARE TO AN ACCURACY
OF TBD METERS.

FUNCTION SOURCES: CRSS 4.1.3

COMM1014(14)

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 1

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 4.1.3 PROVIDE ORBIT POSITION, TBD M ACCURACY
MRWG COMM1014(14) GROUND TRACK DETERMINATION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.1 NAME: GROUND TRACK DETERMINATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	SHORTSCH	C	1.000	0.100
I	Y	E	CUST/OPR	D	3600.000	0.050
O	N	E	SS P/L	C	1.000	0.100
I	N	F	NAVSTATE	C	1.000	0.100
I	Y	F	4.1.1.1	D	2.000	0.050

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.2 NAME: MAGNETIC FIELD DETERMINATION

PREPARED BY: J. DASHIELL

REVISED BY: EASTON

REVISION: 1

REVISION DATE: 03/04/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 04/10/85

DESCRIPTION:

CALCULATES MAGNETIC FIELD VECTOR IN VICINITY OF SS. BASED ON THE SS POSITION VECTOR AND LOCAL FIELD. DATA EXPRESSED IN INERTIAL REFERENCE COORDINATES & PROVIDED TO EXPERIMENT USERS (ANCILLARY DATA.)

FUNCTION SOURCES: 5A AX 0207(4)

SSRCD 4.4.2.1.2C

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

MRWG SAAX0207(4) MAGNETIC FIELD DETERMINATION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.2 NAME: MAGNETIC FIELD DETERMINATION

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	N	D	NAVSTATE	C	2.000	0.010
I	N	D	ENVIRON	C	2.000	0.020
O	N	F	SS P/L	C	2.000	0.010
I	Y	D	OP EVENT	C	2.000	0.020

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.3 NAME: PALLET COARSE POINTING

PREPARED BY: J. DASHIELL

REVISED BY: BOWMAN/EASTON

REVISION: 2

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 07/05/85

DESCRIPTION:

POSITIONS INSTRMNT PALLET TO PNT A SPECIFIC UNIT VECTOR IN THE PLT
COORDINATE SYSTM TO A SPECFC CELESTIAL TRGT OR AN EARTH-FIXED TRGT.
THE PNTING ACCRCY IS DEFINED AS COARSE (WITHN SS ATTITUDE KNLDGE PLS
TRANSFORMATION). FNR PNTING PRVDD BY PYLODS.

FUNCTION SOURCES: RFP C-2-3.1.2
C-4-2.1.2.1

C-2-4.4.C
C-4-2.2.7.1.L

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

RFP C-4-2.2.7.2B

CRSS-4.1.4

-ASSUME 2ND PALLET FOR GROWTH

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.3 NAME: PALLET COARSE POINTING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	NAVSTATE	C	2.000	0.120
I	N	D	EPHEMER	C	2.000	0.100
O	Y	E	PALLET	C	2.000	0.030
I	Y	E	CUST/OPR	D	7200.000	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.4 NAME: RELATIVE ALIGNMENT DETERMINATION

PREPARED BY: J. DASHIELL

REVISED BY: BOWMAN/EASTON

REVISION: 3

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 07/05/85

DESCRIPTION:

DETERMINES HIGH RESOLUTION ALIGNMENT BETWEEN A NAVIGATION BASE &
TUDE MEASUREMENTS & COMPUTED ATTITUDE DATA.

FUNCTION SOURCES: RFP C-4-2.2.7.1.T

C-4-2.2.7.2.B

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP	C-4-2.1.2.1	ARTICULATING MOUNTS FOR EXTERNAL PAYLOADS
RFP	C-4-2.2.7.1.L	PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES
RFP	C-4-2.2.7.1.T	PROVIDE NAV DATA TO PAYLOAD
RFP	C-4-2.2.7.2b	DETERMINE POINTING MOUNT ATTITUDE TO 0.01 DEG
CRSS	4.1.4	PROVIDE ATTITUDE, TBD DEG. ACCURACY

ADDITIONAL REQUIREMENTS:

THIS SERVICE FOR SS USERS PARALLELS THE NEEDS THAT EXISTED FOR THE
SKYLAB PROGRAM. ALIGNMENT TRANSFORMATIONS WERE DETERMINED FROM MUL-
TIPLE OBSERVATIONS-SUN, STARS AND MANEUVER UNIT VECTORS-FROM NAVI-
GATION BASE TO EXPERIMENT MOUNTING COORDINATES.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.4 NAME: RELATIVE ALIGNMENT DETERMINATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.1.2.6	C	2.000	0.200
I	N	E	STARTRAK	C	2.000	0.300
I	N	D	NAVSTATE	C	2.000	0.100
I	N	E	ALIGN S	C	2.000	0.300
O	N	E	SS P/L	C	2.000	0.300
O	N	D	CORESTAT	C	2.000	0.300
I	N	D	EPHEMER	C	2.000	0.300

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.2 NAME: ENVIRONMENT MONITOR

PREPARED BY: J. DASHIELL

REVISED BY: BOWMAN/EASTON

REVISION: 3

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 07/05/85

DESCRIPTION:

PROVIDES GENERAL MONITORING OF INDUCED CONTAMINATION ENVIRONMENT SOURCES AND PROVIDES DATA TO CORE AND CUSTOMER USERS IN CORE & P/L STATUS FILES. ENVIRONMENT SOURCES INCLUDE ONBOARD SS AND NEARBY SSPE'S.

FUNCTION SOURCES: C-4-2.1.3-3
SAAX 0110(35)

TABLE C-4-II

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 10

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.1.3.3 INTERNAL/EXTERNAL CONTAMINATION MONITOR

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.2 NAME: ENVIRONMENT MONITOR

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	Y	E	MAGMETER	C	10.000	0.400
I	N	D	SHORTSCH	C	10.000	0.100
I	Y	E	ENV SENS	C	0.100	0.500
O	N	D	ENVIRON	C	0.100	0.100
O	N	D	CORESTAT	C	10.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.3 NAME: TRACKING SERVICES

PREPARED BY: J DASHIELL

REVISED BY: BOWMAN

REVISION: 2

REVISION DATE: 04/10/85

FUNCTION TYPE: C

PROGRAM PHASE: I,G

ENTERED DATE: 04/10/85

DESCRIPTION:

PROVIDES RELATIVE RANGE & RANGE RATE DATA BETWEEN SS & OTHER ORBITAL
SSPE'S. THESE DATA ARE TRANSMITTED TO THESE SPACE CRAFT FOR THEIR
USE.

FUNCTION SOURCES: TDMX2220(54)

CRITICALITY - RECOVERY TIME: 3

IMPACT: 3

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 5

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.6.2.C C & T BETWEEN SS AND INTEROPERATING ELEMENTS
RFP C-4-2.2.6.2.E PROVIDE ACQ & TRACKING FOR DETACHED VEHICLES

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.3 NAME: TRACKING SERVICES

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	N	D	OBJSTATE	C	2.000	1.000
O	Y	E	CONSTI/F	D	2.000	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.1 NAME: MONITOR CORE SYSTEM'S STATUS
 PREPARED BY: J. DASHIELL REVISED BY: BOWMAN/EASTON
 REVISION: 6 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
 ENTERED DATE: 07/05/85

DESCRIPTION:

RECEIVES STATUS DATA FROM ALL CORE SYSTEMS, PROCESSES DATA IF NECESSARY, MAINTAINS A CORE OPERATIONAL DATA BASE (CORE STATUS). PRIME PURPOSE IS TO MONITOR HEALTH OF EACH SYSTEM, ISSUE COMMANDS TO CAUTION & WARNING THAT DATA ARE OUT OF TOLERANCE.

FUNCTION SOURCES: C-4-2.1.9.C C-4-2.1.11.2
 C-4-2.2.7.1.I C-4-2.2.3.E

CRITICALITY - RECOVERY TIME: 3 IMPACT: 3

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 4
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-2.1.9.C	MONITORING AND FAULT ISOLATION OF ORU'S
RFP	C-4-2.1.11.2.A1	INDEPENDENT EMERGENCY DETECT & CTRL
CRSS	8.5.1	MAINTAIN STATUS OF END-TO-END COMM. SYSTEM
RFP	C-4-2.2.7.1.I	PROVIDE PROPELLANT USAGE DATA
RFP	C4-2.2.11.2.B.2	MMU, & EMU SERVICE/PERFORMANCE TREND DATA ANALYSIS
RFP	C-4-2.2.3.e	PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS
RFP	C-4-2.2.12.2.H	FLUID MONITOR & CTRL
CRSS	7.1.1	CONSUMABLES MANAGEMENT
CRSS	7.3.2	DIFFERENTIATE P/L, SSIS FAULTS

ADDITIONAL REQUIREMENTS:
 DISPLAYS: IOC 2; GROWTH 4

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.1 NAME: MONITOR CORE SYSTEM'S STATUS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.3.2.1	D	8640.000	0.100
O	Y	F	4.3.2.2	D	8640.000	0.100
O	Y	F	4.5.5	C	86400.000	2.000
O	N	E	CORE OPR	C	10.000	2.000
I	N	D	FLT STAT	C	10.000	1.000
O	Y	F	4.5.4.1	D	8640.000	1.000
I	N	D	CORESTAT	C	10.000	5.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.2 NAME: MONITOR CUSTOMER SYSTEMS STATUS
 PREPARED BY: J. DASHIELL REVISED BY: BOWMAN/EASTON
 REVISION: 5 REVISION DATE: 06/21/85
 FUNCTION TYPE: U PROGRAM PHASE: I,G
 ENTERED DATE: 07/05/85

DESCRIPTION:

CENTRAL MEANS OF MONITORING OPERATIONAL STATUS OF PARTICULAR PAY-LOADS TO DETERMINE OFF-NOMINAL CONDITIONS AND SAFETY IMPACTS.

FUNCTION SOURCES: C-4-2.2.5.2.A C-4-2.2.5.3.K
 C-4-2.2.12.2.H C-4-2.2.3.E

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 3
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-2.2.5.2.A	STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS
RFP	C-4-2.2.5.3.K	SUBSYSTEM MONITOR & CTRL BY CREW, GROUND
RFP	C-4-2.2.12.2.H	FLUID MONITOR & CTRL
RFP	C-4-2.2.3.e	PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS
CRSS	7.3.2	DIFFERENTIATE P/L, SSIS FAULTS
CRSS	7.3.3	MONITOR, PROTECT DATA SYSTEM INTERFACES
CRSS	7.3.4	MEASURE, CONTROL RESOURCES AVAILABLE
CRSS	7.1.1	CONSUMABLES MANAGEMENT
MRWG	SAAX0008(61)	FLUIDS STATUS DATA
MRWG	COMM1110(38)	SPACE STATION CUSTOMER SYSTEM STATUS
MRWG	TDMX2150(51)	VOLTAGE/CURRENT MONITOR
MRWG	COMM1312(20)	GROUND CUSTOMER SYSTEM STATUS

ADDITIONAL REQUIREMENTS:

7.3.2, 7.3.3, 7.3.4, 7.1.1, SAAX0008 (61), COMM 1110(38),
 COMM 1312(20), TDM2150(51), DISPLAYS: IOC 1; GROWTH 2

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.2 NAME: MONITOR CUSTOMER SYSTEMS STATUS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.3.2.1	D	8640.000	0.100
O	N	E	CUST/OPR	C	10.000	2.000
O	Y	F	4.3.2.2	D	8640.000	0.100
I	N	D	P/L STAT	C	10.000	2.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.3 NAME: MASS PROPERTIES CONFIGURATION UPDATE
PREPARED BY: J. DASHIELL REVISED BY: BOWMAN/EASTON
REVISION: 4 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 07/05/85

DESCRIPTION:

CONTROL TO DEFINE SS MASS & INERTIA PROPERTIES TO CORE. ALLOWS CORE
INPUT SPECIFICATION AND AUTOMATIC UPDATES. CONFIGURATIONS INCLUDE
SPACE STATION.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 3

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

DISPLAYS: IOC 1; GROWTH 1

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.3 NAME: MASS PROPERTIES CONFIGURATION UPDATE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	MASSPROP	C	10.000	0.100
I	N	D	MASSPROP	C	360000.000	10.000
O	Y	F	4.3.2.2	D	8640.000	0.100
I	N	D	CORESTAT	C	10.000	1.000
I	N	D	P/L STAT	C	10.000	1.000
O	Y	F	4.3.2.1	D	8640.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.1 NAME: FAULT ANALYSIS

PREPARED BY: J. DASHIELL

REVISION: 4

FUNCTION TYPE: C

REVISED BY: BOWMAN/EASTON

REVISION DATE: 06/21/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 07/05/85

DESCRIPTION:

INVOKED BY 4.5.1 & 4.5.2, DEFINED SYSTEM IS ANALYZED FROM SPECIFIED DATA CONTAINED IN CORE STATUS & P/L STATUS DATA FILES. ASSUMED PARTIALLY AUTOMATED FOR B1-B7 & EXPERT SYSTEMS ADDED IN GROWTH PERIOD.

FUNCTION SOURCES: RFP C-4-2.2.5.2.A

RFP C-4-2.2.5.3.H

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

DISPLAYS: IOC 5; GROWTH 20

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.1 NAME: FAULT ANALYSIS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	CORESTAT	D	3600.000	1.000
I	N	D	FLT STAT	D	3600.000	1.000
O	N	E	ONBD OPR	D	7200.000	1.000
I	Y	F	4.5.1	D	8640.000	1.000
O	Y	F	4.3.2.2	D	7200.000	1.000
O	Y	F	4.5.4.2	D	3600.000	1.000
O	N	E	GND OPR	D	7200.000	1.000
O	N	D	CORESTAT	D	14400.000	1.000
O	Y	F	4.5.4.3	D	3600.000	0.500
I	Y	F	4.5.4.3	D	86400.000	2.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.2 NAME: FAULT CORRECTION

PREPARED BY: J. DASHIELL

REVISED BY: BOWMAN/EASTON

REVISION: 3

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 07/05/85

DESCRIPTION:

INVOKED BY 4.5.1 & 4.5.2, DEFINED SYSTEM &
FAULT ANALYSIS DATA ARE USED TO DERIVE A FAULT CORRECTION(S). ASSUMED
PARTIALLY AUTOMATED FOR B1-B7 & EXPERT SYSTEMS ADDED DURING GROWTH
PERIOD.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

DISPLAYS: IOC 5; GROWTH 20

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.2 NAME: FAULT CORRECTION

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	N	D	FLT STAT	D	3600.000	1.000
O	N	E	GND OPR	D	86400.000	10.000
O	N	E	ONBD OPR	D	86400.000	10.000
I	N	D	CORESTAT	D	3600.000	1.000
I	N	D	SIMMODEL	D	86400.000	50.000
I	N	E	GND OPR	D	86400.000	1.000
I	N	E	ONBD OPR	D	86400.000	1.000
I	Y	F	4.5.4.1	D	3600.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.3 NAME: TREND ANALYSIS

PREPARED BY: EASTON

REVISION: 4

FUNCTION TYPE: C

REVISED BY: BOWMAN/EASTON

REVISION DATE: 06/21/85

PROGRAM PHASE: I

ENTERED DATE: 07/05/85

DESCRIPTION:

INVOKED BY 4.5.4; RESPONDS WITH DATA TO INDICATE PARAMETER VALUES, RATE OF CHANGE, ESTIMATES OF OUTSIDE THRESHOLD LIMITS. TREND DATA AND FORECAST LIMITED TO SHORT TERM, TBD HOURS.

FUNCTION SOURCES: C4-2.2.11.2.B

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C4-2.2.11.2.B.2 MMU, & EMU SERVICE/PERFORMANCE TREND DATA ANALYSIS

ADDITIONAL REQUIREMENTS:

DISPLAYS: IOC 2;GROWTH 4

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.3 NAME: TREND ANALYSIS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.5.4.1	D	3600.000	0.500
O	N	D	COREHIST	C	3600.000	2.000
O	N	E	GND OPR	D	3600.000	1.000
I	N	D	COREHIST	D	3600.000	5.000
O	Y	F	4.5.4.1	D	86400.000	2.000
O	N	E	ONBD OPR	D	14400.000	1.000
I	Y	E	ONBD OPR	D	14400.000	0.500
I	N	D	CORESTAT	C	1800.000	10.000
I	Y	D	FLT STAT	D	3600.000	1.000
I	Y	E	GND OPR	D	3600.000	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.5 NAME: SYSTEM TEST AND EVALUATION
PREPARED BY: J. DASHIELL REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: I,G
ENTERED DATE: 07/05/85

DESCRIPTION:

INVOKED BY 4.5.1 OR 4.5.2. DETERMINES HEALTH & STATUS OF IDENTIFIED
SYSTEM ELEMENTS, CORE & PAYLOAD. PERFORMS SELF TESTS AND COMPARISON
AGAINST ESTABLISHED SYSTEM NORMS. RESULTS RETURNED TO 4.5.1 OR
4.5.2. CANDIDATE FOR EXPERT SYSTEM.

FUNCTION SOURCES: C-4-2.2.5.2.A C-4-2.2.5.3.H

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.5 NAME: SYSTEM TEST AND EVALUATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.5.1	C	86400.000	2.000
I	Y	F	4.0	D	2.000	0.500
O	Y	F	4.3.2.2	D	86400.000	0.200
O	Y	F	4.3.2.1	D	86400.000	0.200
O	Y	F	4.0	D	2.000	2.000
O	N	D	CORESTAT	D	86400.000	2.000
O	N	D	P/L STAT	D	86400.000	0.200

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.6 NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: J. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 03/25/85

FUNCTION TYPE:

PROGRAM PHASE: I,G

ENTERED DATE: 04/08/85

DESCRIPTION:

PROVIDES INTERFACE COMMAND & CONTROL FOR ALL SOFTWARE & HARDWARE ASSOCIATED WITH FUNCTION SET. 4.5. IMPLEMENTS ONBOARD CREW INPUTS & GROUND COMMANDS TO S/W & H/W UNITS. OVERRIDES AUTOMATIC CONTROL WHEN COMMANDED.

FUNCTION SOURCES: C-4-2.2.5.1.A
6.1.5.1,6.2.1.3

C-4-2.2.5.2.A

CRITICALITY - RECOVERY TIME: 3

IMPACT: 3

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED:
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

-TOTAL DISPLAYS: IOC 23; GROWTH 65

-MAX DISPLAYS UP IS 4

-HALF TEXT/ HALF GRAPHICS

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.6 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.1 NAME: UPDATE/ACCESS AND SYNCHRONIZATION

PREPARED BY: KILLINGBECK

REVISED BY: -

REVISION: 0

REVISION DATE: 03/21/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 03/27/85

DESCRIPTION:

PROVIDE ABILITY TO MAKE UPDATES TO DATA BASE, AND TO ACCESS INFORMATION IN DATA BASE. SYNCHRONIZE UPDATES VS. ACCESS TO ASSURE COHERENT DATA SETS. CHECK UPDATE/ACCESS AUTHORIZATION OF USERS. PROVIDE DATA BASES INTEGRITY CHECKS & FAILURE RECOVERY MECHANISMS.

FUNCTION SOURCES: C-4-2.2.5.3.A;

C-4-2.2.5.3.M

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.1 NAME: UPDATE/ACCESS AND SYNCHRONIZATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	ALL DS	D	0.000	50.000
I	Y	F	ALL FNCT	D	0.000	0.100
O	Y	F	ALL FNCT	D	0.000	0.500
O	Y	D	ALL DS	D	0.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.2 NAME: DATA FILE MANAGEMENT

PREPARED BY: KILLINGBECK

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 03/21/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 03/27/85

DESCRIPTION:

UPDATE AND ACCESS SEQUENTIAL SETS OF DATA (FILES). CHECK AUTHORIZATION FOR ACCESS/UPDATE PER USER. STORE SUBSYSTEMS & PLATFORM DATA AT RATES ABOVE 225 KBPS EACH (NOTE 1).

FUNCTION SOURCES: 2.2.5.3.N

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

NOTE 1: THIS REQUIREMENT "TO ACCEPT, FORMAT, MERGE, & STORE ..." IS A KEY DESIGN DRIVER, IF THE INTENT IS FOR ANY ONBOARD PROCESSING AT THESE RATES.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.2 NAME: DATA FILE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	OPERATOR	D	3600.000	1.000
I	Y	E	OPERATOR	D	3600.000	0.100
O	Y	D	TEMPSTOR	C	1.000	225.000
I	Y	E	P/LCONST	C	1.000	225.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.3 NAME: MASS MEMORY RESOURCE MANAGEMENT
PREPARED BY: KILLINGBECK REVISOR BY:
REVISION: 0 REVISION DATE: 03/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 03/27/85

DESCRIPTION:
MONITOR REMAINING SPACE ON MASS MEMORY DEVICES. DELETE OLD DATA
(IF ALLOWED). ALERT OPERATOR IF NEARING WARNING OR CRITICAL
UTILIZATION. ALLOCATE SPACE FOR NEW USERS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.3 NAME: MASS MEMORY RESOURCE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	5.1.1.6	D	100000.000	0.100
I	N	D	CORESTAT	C	3600.000	1.000
O	Y	E	OPERATOR	D	100000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.4 NAME: ARCHIVAL STORAGE

PREPARED BY: KILLINGBECK

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 03/21/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 03/27/85

DESCRIPTION:

MOVE DATA FROM ONLINE STORAGE TO ARCHIVAL STORAGE FOR SUBSEQUENT SHIPMENT TO THE GND AT A RESUPPLY POINT. PROVIDE CAPABILITY TO ACCESS SELECTED TIME INTERVALS OF ARCHIVED DATA ONBOARD, BEFORE SHIPMENT TO THE GND. MONITOR REMAINING CAPACITY.

FUNCTION SOURCES: C-2-4.8.2

CRITICALITY - RECOVERY TIME: 4

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.4 NAME: ARCHIVAL STORAGE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	L/T ARCH	C	100000.000	10000.000
I	Y	F	5.1.1.6	D	100000.000	0.100
I	Y	E	OPERATOR	D	100000.000	0.100
I	Y	D	CORESTAT	C	100000.000	10000.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.5 NAME: DEVICE MANAGEMENT

PREPARED BY: KILLINGBECK

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 03/21/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 03/27/85

DESCRIPTION:

CONTROL & MONITOR ONBOARD DATA BASE MGT DEVICES (DATA BASE PROCESSORS, FILE MGT PROCESSORS, MASS STORAGE & ARCHIVAL STORAGE UNITS. PERFORM TURN-ON, TURN-OFF, STATUS MONITOR. DIRECT OPERATOR TO MOUNT/REMOVE ARCHIVAL STORAGE, IF APPROPRIATE

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.5 NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	OPERATOR	D	100000.000	0.100
I	N	D	CORESTAT	C	10.000	0.100
I	Y	F	5.1.1.6	D	100000.000	0.100
O	N	E	OPERATOR	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.6 NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: KILLINGBECK

REVISED BY:

REVISION: 0

REVISION DATE: 03/21/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 03/27/85

DESCRIPTION:

ACCEPT CREW OR GROUND COMMANDS FOR CONFIGURATION MANAGEMENT OF THE DATA BASE MANAGEMENT SYSTEM. ROUTE THE COMMAND TO THE APPROPRIATE SUBFUNCTION (OTHER 5.1.1.X FUNCTIONS) FOR IMPLEMENTATION

FUNCTION SOURCES: -

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.6 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	OPERATOR	D	100000.000	0.100
O	Y	F	5.1.1.3	D	100000.000	0.100
O	Y	F	5.1.1.4	D	100000.000	0.100
O	Y	F	5.1.1.5	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.1 NAME: LOAD SCHEDULING

PREPARED BY: KILLINGBECK

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 02/18/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 03/28/85

DESCRIPTION:

PROJECT NEEDS FOR ONBOARD DATA MGT RESOURCES BASED ON MASTER PLAN, SHORT TERM SCHED, ETC. IDENTIFY APPROPRIATE UNITS FOR EXECUTION (PROCESSOR TYPES & LOCATIONS, MASS STORE DEVICES, DISPLAYS). MONITOR ACTUAL USE VERSUS PLAN & SAFE SYST OR ALERT OPERATOR.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.1 NAME: LOAD SCHEDULING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	OPERATOR	D	30000.000	2.000
O	Y	D	CREWTASK	D	30000.000	2.000
I	Y	E	TDRSS	D	30000.000	1.000
I	Y	E	COMM I/F	D	30000.000	1.000
I	Y	D	MSTRPLAN	D	30000.000	1.000
I	Y	D	SHORTSCH	D	30000.000	1.000
I	Y	D	OPEVENTS	D	30000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.2 NAME: SYSTEM EXECUTIVE

PREPARED BY: KILLINGBECK

REVISION: 1

FUNCTION TYPE: C

REVISED BY: J. DASHIELL

REVISION DATE: 04/25/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 04/25/85

DESCRIPTION:

SUPPLY STANDARD OPERATING SYSTEM FUNCTIONS (SCHEDULE PROCESSES FOR MULTITASKING, PROVIDE I/O, TIME EVENT SEQUENCING OF TASKS...).

SUPPLY NETWORK OPERATING SYSTEM FOR PROCESS-TO-PROCESS MESSAGES (LOCATE PROCESS, ROUTE MESSAGE, ALERT RECEIVER, ETC.).

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

NOTE 1: THE SYS EXEC PER SE HAS FEW INPUTS OR OUTPUTS. NEARLY ALL OTHER PROCESS' COMM USE THE SYST EXEC AS A "HIDDEN" INTER-MEDIARY. INPUTS & OUTPUTS ARE THEREFORE ABOUT EQUAL TO THE SUM OF ALL OTHER FUNCTIONS INPUTS & OUTPUTS.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.2 NAME: SYSTEM EXECUTIVE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.3 NAME: INITIALIZATION CONFIGURATION CONTROL
PREPARED BY: KILLINGBECK REVISION: 0
REVISION: 0 REVISION DATE: 03/19/85
FUNCTION TYPE: C PROGRAM PHASE: B1
ENTERED DATE: 03/28/85

DESCRIPTION:

INITIAL PROGRAM START-UP OF FLIGHT SYSTEM. CREW/AUTOMATIC SPECIFICATION OF BASIC CONFIGURATION. LOAD INTERFACE DEVICES WITH NETWORK OPERATING SYSTEM. LOAD PROCESSORS WITH FUNDAMENTAL PROGRAMS (OPERATING SYSTEM, MINIMAL CREW INTERFACE).

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.3 NAME: INITIALIZATION CONFIGURATION CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KEYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	CORE OPR	D	100000.000	0.100
I	Y	F	5.1.2.8	D	100000.000	0.100
O	Y	E	CORESYST	D	100000.000	100.000
O	Y	F	5.1.2.4	D	10000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.4 NAME: CONFIGURE DATA PROCESSING EQUIPMENT
PREPARED BY: KILLINGBECK REVISION DATE: 03/19/85
REVISION: 0 PROGRAM PHASE: B1
FUNCTION TYPE: C ENTERED DATE: 03/28/85

DESCRIPTION:

ASSIGN PROCESSING TASKS TO APPROPRIATE UNITS OF DATA PROCESSING EQUIPMENT. UTILIZE DEFAULT ALLOCATION TABLES, AUGMENTED WITH MANUAL INPUTS & DYNAMIC LOADING ESTIMATES. REASSIGN TASKS FOLLOWING FAILURE OF AN EXISTING UNIT. ALLOCATE MASS STORAGE & WORKSTATIONS TO TASK.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 3

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.4 NAME: CONFIGURE DATA PROCESSING EQUIPMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	CORESIST	D	10000.000	100.000
O	Y	D	CORESTAT	D	10000.000	0.100
I	Y	F	5.1.2.8	D	100000.000	0.100
I	Y	F	5.1.2.3	D	10000.000	0.100
I	Y	D	CORESTAT	D	10000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.5 NAME: FACILITY STATUS

PREPARED BY: KILLINGBECK

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 03/20/85

PROGRAM PHASE: B1,I,G

ENTERED DATE: 03/28/85

DESCRIPTION:

MONITOR HEALTH, POWER UTILIZATION, MEMORY USAGE, AND COMPUTATIONAL
USAGE OF ONBOARD DATA PROCESSING EQUIPMENT. MAINTAIN RECORDS OF
STATUS OF AVAILABLE SPARES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.5 NAME: FACILITY STATUS

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
O	Y	E	CORE OPR	C	1.000	1.000
I	N	D	FAC STAT	C	1.000	1.000
I	Y	E	CORE OPR	D	10000.000	0.100
O	N	D	FAC STAT	C	1.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.6 NAME: RECONFIGURE/DISCONNECT PAYLOADS & CORE SYSTEMS
 PREPARED BY: KILLINGBECK REVISED BY: BOWMAN/EASTON
 REVISION: 2 REVISION DATE: 06/21/85
 FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
 ENTERED DATE: 07/05/85

DESCRIPTION:

MONITOR SUBSYST UTILIZATION OF RESOURCES (POWER, COOLING, BANDWIDTH, MEMORY, MASS STORAGE, ETC.). COMPARE AGAINST AUTH PROFILES. ALERT USER/OPERATOR (ABOVE LIMITS, TOTAL SYSTEM NOT AT CRITICAL LEVEL), OR ABORT LOWER CRITICALITY USERS (SYST AT CRITICAL LEVEL).

FUNCTION SOURCES: C-4-2.2.3.F; C-4-3.6.B;
 C-4-2.2.3.E; 7.3.3

CRITICALITY - RECOVERY TIME: 1 IMPACT: 3

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 1
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS	7.3.3	MONITOR, PROTECT DATA SYSTEM INTERFACES
CRSS	5.4.5	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA
RFP	C-4-2.2.3.F	RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES
RFP	C-4-3.6.B	PAYLOAD FACILITIES MGMT
RFP	C-4-2.2.3.e	PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.6 NAME: RECONFIGURE/DISCONNECT PAYLOADS & CORE SYSTEMS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	5.1.2.8	D	100000.000	1.000
I	N	D	CORESTAT	C	1.000	5.000
I	Y	E	CORE OPR	D	10000.000	0.100
I	Y	F	5.1.2.8	D	100000.000	0.100
O	Y	F	4.2.1.2	D	1.000	1.000
O	N	D	CORESTAT	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.7 NAME: DEVICE MANAGEMENT

PREPARED BY: KILLINGBECK

REVISED BY:

REVISION: 0

REVISION DATE: 03/20/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 03/28/85

DESCRIPTION:

COMMAND SELF-TEST OR OTHER DIAGNOSTICS TO BE PERFORMED BY ON-BOARD DATA SYSTEM DEVICES. USE RESULTS, OR CROSS-COMPARISON TO SIMILAR DEVICES TO IDENTIFY SUSPECT OR FAULTY UNITS. TURN DEVICES ON OR OFF.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.7 NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	CORESTAT	D	10000.000	0.100
I	Y	F	5.1.2.8	D	100000.000	0.100
I	Y	E	CORE OPR	D	10000.000	0.100
I	N	D	CORESTAT	D	10000.000	0.100
O	Y	E	CORESIST	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.8 NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: KILLINGBECK

REVISED BY: BOWMAN/EASTON

REVISION: 1

REVISION DATE: 06/21/85

FUNCTION TYPE: C

PROGRAM PHASE: B1,I,G

ENTERED DATE: 07/05/85

DESCRIPTION:

ACCEPT CREW OR GROUND COMMANDS FOR CONFIGURATION MANAGEMENT OF
FLIGHT DATA SYSTEMS. EXECUTE THE COMMAND BY USE OF OTHER 5.1.2.X
FUNCTIONS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 1

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.8 NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	N	D	CORESTAT	D	10000.000	1.000
O	Y	F	5.1.2.3	D	100000.000	0.100
O	Y	F	5.1.2.6	D	100000.000	0.100
O	Y	F	5.1.2.4	D	100000.000	0.100
O	Y	F	5.1.2.7	D	100000.000	0.100
I	Y	E	CORE OPR	D	10000.000	0.100
I	Y	F	5.1.2.6	D	100000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.3.1 NAME: DISPLAY AND CONTROL DEVICE MANAGEMENT
PREPARED BY: KILLINGBECK REVISION DATE: 03/15/85
REVISION: 0 PROGRAM PHASE: B1,I,G
FUNCTION TYPE: C ENTERED DATE: 03/28/85

DESCRIPTION:
CONTROL AND MONITOR THE ONBOARD DISPLAYS AND CONTROLS (TURN ON,
TURN OFF, STATUS MONITOR, ETC.)

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.3.1 NAME: DISPLAY AND CONTROL DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
O	N	E	OPERATOR	D	100000.000	0.200
I	Y	E	FLT PROC	C	1.000	0.100
I	Y	F	5.1.3.2	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.3.2 NAME: DISPLAY AND CONTROL COMMAND INTERFACE PROCESSING
PREPARED BY: KILLINGBECK REVISED BY: P.J. BOWMAN
REVISION: 1 REVISION DATE: 05/09/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 05/09/85

DESCRIPTION:

ACCEPT CREW OR GROUND COMMANDS FOR CONFIGURATION MANAGEMENT OF
DISPLAYS AND CONTROLS. EXECUTE THE COMMAND (START DIAGNOSTICS,
SELECT DISPLAY MODE, TURN ON, TURN OFF, ETC.)

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.3.2 NAME: DISPLAY AND CONTROL COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	3.4.2	D	100000.000	0.100
O	Y	F	5.1.3.1	D	100000.000	0.100
I	Y	F	2.3.2P	D	100000.000	0.100
I	Y	F	2.3.2	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.1 NAME: INTERFACE MANAGEMENT

PREPARED BY: T. Chiang

REVISED BY: P.J. BOWMAN

REVISION: 3

REVISION DATE: 05/09/85

FUNCTION TYPE: D

PROGRAM PHASE: I,G

ENTERED DATE: 05/09/85

DESCRIPTION:

Provides interface for the ground facility management including scheduled inputs, software development status, unscheduled mode change from both space and ground. Transmits all reconfiguration request to all ground data processing equipment.

FUNCTION SOURCES: FACC DESIGN SHEET

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.1 NAME: INTERFACE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	Y	D	GNDSTAT	D	0.146	1.000
I	Y	D	MSTRPLAN	C	0.146	1.000
I	Y	F	5.2.3	C	0.146	1.000
I	Y	E	COMM I/F	D	3.400	1.000
I	Y	E	NCC	D	1000.000	1.000
O	Y	F	5.2.2	C	0.146	1.000
I	Y	F	1.3.4	D	0.140	1.000
I	Y	D	OPEVENTS	C	0.146	1.000
O	Y	E	NCC	D	10000.000	1.000
I	Y	D	SHORTSCH	C	0.146	1.000
O	Y	E	SSCCPROC	D	3.400	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.2 NAME: SCHEDULE/STATUS COMPARE
PREPARED BY: T. CHIANG REVISED BY: BOWMAN
REVISION: 2 REVISION DATE: 04/22/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 04/24/85

DESCRIPTION:
PROVIDES INPUTS FROM GROUND FACILITIES STATUS. GENERATES CONFLICTS
BETWEEN SCHEDULE AND FACILITIES STATUS AND/OR UNSCHEDULED MODE CHANGE
FOR EQUIPMENT FAILURE.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.2 NAME: SCHEDULE/STATUS COMPARE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	SSCCSTAT	D	3.400	1.000
O	Y	F	5.2.3	C	0.146	1.000
I	Y	F	5.2.1	C	0.146	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.3 NAME: TRANSMIT RECONFIGURATION SCHEDULE
 PREPARED BY: T. CHIANG REVISED BY: BOWMAN
 REVISION: 2 REVISION DATE: 04/22/85
 FUNCTION TYPE: D PROGRAM PHASE: I,G
 ENTERED DATE: 04/24/85

DESCRIPTION:

GENERATES GROUND RECONFIGURATION REQUEST BY USING CONFIGURATION CODE
 TO RESOLVE CONFLICTS ACCORDING TO OPERATION PRIORITIES; TRANSMITS NEW
 SCHEDULES BACK TO GROUND FACILITIES AND CONFLICTS TO GROUND FACILITY
 STATUS AND DISPLAY CENTER.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 CRSS 5.1.4 PROVIDE FOR REALTIME REALLOC OF DATA DIST RESOURCES
 CRSS 5.1.9 STATUS COMMUNICATION LINKS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.3 NAME: TRANSMIT RECONFIGURATION SCHEDULE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	5.2.2	C	0.146	1.000
I	Y	D	PRIORITY	D	3.400	1.000
I	Y	D	CONF CODE	D	3.400	1.000
O	Y	F	5.2.5	D	3.400	1.000
O	Y	D	SSCCSTAT	D	3.400	1.000
O	Y	F	5.2.1	C	0.146	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.4 NAME: GROUND STATUS DATABASE MANAGEMENT
PREPARED BY: T. CHIANG REVISED BY: BOWMAN
REVISION: 2 REVISION DATE: 04/22/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 04/24/85

DESCRIPTION:
MAINTAINS AN UPDATED CONFIGURATION CONTROL OF GROUND FACILITY STATUS
DATA

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.4 NAME: GROUND STATUS DATABASE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	SSCCPROC	D	0.146	1.000
O	Y	F	5.2.5	D	0.146	1.000
O	Y	D	SSCCSTAT	D	0.146	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.5 NAME: ADJUST FOR UNSCHEDULED MODE CHANGES
PREPARED BY: T. CHIANG REVISED BY: BOWMAN/EASTON
REVISION: 4 REVISION DATE: 06/21/85
FUNCTION TYPE: D PROGRAM PHASE: I,G
ENTERED DATE: 07/05/85

DESCRIPTION:

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.2.5 NAME: ADJUST FOR UNSCHEDULED MODE CHANGES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	3.3.4P	D	100000.000	0.100
I	Y	F	5.2.4	D	0.146	1.000
I	Y	F	5.2.3	D	3.400	1.000
O	Y	E	CUSTOMER	C	1.000	1.000
I	Y	F	3.3.4	D	100000.000	0.100
I	Y	E	CUSTOMER	D	100.000	1.000
I	Y	E	OPERATOR	D	10.000	1.000
O	Y	E	OPERATOR	C	1.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.1 NAME: INTERPRET MODEL REQUESTS
 PREPARED BY: EASTON/KRISHAN REVISED BY: P.J. BOWMAN
 REVISION: 2 REVISION DATE: 05/09/85
 FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
 ENTERED DATE: 05/09/85

DESCRIPTION:
 PROVIDES AN INTERACTIVE INTERFACE TO SUPPORT ALL STANDARD CUSTOMER,
 CREW, AND CONTRACTOR SERVICE REQUESTS AND DETERMINE THE HARDWARE AND
 SOFTWARE ELEMENTS REQUIRED.

FUNCTION SOURCES: CRSS 8.2.2 CRSS 8.6.1

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS 8.2.2		PROVIDE REMOTE, MENU-DRIVEN ACCESS TO SIMULATIONS
CRSS 8.6.1		PROVIDE SELECTION OF SIM. MODELS, STATIC TO VERY DYNAMIC

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.1 NAME: INTERPRET MODEL REQUESTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	6.4	D	3600.000	8.000
O	Y	F	6.8.1	D	3600.000	6.000
O	Y	F	6.6	D	3600.000	14.000
O	Y	F	6.2	D	86400.000	1.000
O	N	E	CUSTOP C	D	3600.000	20.000
I	Y	E	CUSTOP C	D	3600.000	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.2 NAME: DEVELOP COMMUNICATIONS MODEL CONFIGURATION
PREPARED BY: EASTON REVISED BY: KRISHAN
REVISION: 1 REVISION DATE: 04/24/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 04/24/85

DESCRIPTION:
ACCEPTS COMMUNICATION SIMULATION REQUIREMENTS. DETERMINES
COMMUNICATIONS INTERFACES AND EXTERNAL ELEMENTS TO BE UTILIZED.
SELECTS COMM SYSTEM ELEMENT SIMULATION.

FUNCTION SOURCES: CRSS 8.5.1

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 8.5.1 VERIFY END-TO-END CUST DATA THROUGHPUT
MRWG SAAX0005(44) CUSTOMER PACKAGE VERIFICATION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.2 NAME: DEVELOP COMMUNICATIONS MODEL CONFIGURATION

		SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
O	Y	F	6.3	D	86400.000	14.000
I	Y	F	6.1	D	86400.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.3 NAME: SIMULATE SPACE STATION SYSTEM COMM ELEMENTS
 PREPARED BY: EASTON/KRISHAN REVISED BY: P.J. BOWMAN
 REVISION: 2 REVISION DATE: 05/09/85
 FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
 ENTERED DATE: 05/09/85

DESCRIPTION:

EXECUTES COORDINATED COMMUNICATION LINK SIMULATIONS INCLUDING
 INTERFACES TO EXTERNAL COMMUNICATION LINKS AND EXPORT OF SIMULATIONS
 TO REMOTE LOCATIONS.

FUNCTION SOURCES: RFP C-3-2.3.B RFP C-3-2.5.D
 CRSS 8.1.2 CRSS 8.5.1

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 5
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP	C-3-2.5.B	PROVIDE ON-BOARD TRAINING
RFP	C-3-2.3.B	MINIMIZE GSE DURING GROUND TEST
RFP	C-3-2.5.D	ON BOARD TRAINING VIA GROUND DATA BASE SUPPORT
RFP	C-3-2.3.C	VERIFY FUNCTIONAL INTERFACES BEFORE LAUNCH
MRWG	SAAX0005(44)	CUSTOMER PACKAGE VERIFICATION
CRSS	8.1.2	ACCEPT/RETURN CUSTOMER PAYLOAD TEST DATA
CRSS	8.5.1	VERIFY END-TO-END CUST DATA THROUGHPUT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.3 NAME: SIMULATE SPACE STATION SYSTEM COMM ELEMENTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	COMM I/F	D	3600.000	7.000
O	Y	F	6.5	D	86400.000	9.000
I	Y	F	6.2	D	86400.000	14.000
I	Y	E	COMM I/F	D	86400.000	1.000
I	N	D	SIMMODEL	D	86400.000	20.000
O	N	E	CUSTOP C	D	60.000	12.000
I	Y	F	6.5	D	86400.000	9.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.4 NAME: DEVELOP HARDWARE INTEGRATION CONFIGURATION
 PREPARED BY: EASTON/KRISHAN REVISED BY: P.J. BOWMAN
 REVISION: 2 REVISION DATE: 05/09/85
 FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
 ENTERED DATE: 05/09/85

DESCRIPTION:
 ACCEPTS HARDWARE SIMULATION REQUIREMENTS. DETERMINES HARDWARE
 INTERFACES AND SIMULATION ELEMENTS TO BE USED.

FUNCTION SOURCES: RFP C-3-2.3 A CRSS 8.1.2

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS	5.4.4	PROVIDE STD INTERFACE TO CUST ENCRYPT/DECRYPT EQPT
CRSS	5.1.8	PROVIDE STANDARD TELECOMM INTERFACES
CRSS	2.1.2.1	USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL
CRSS	2.2.1	OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES
CRSS	2.1.2	USE EXISTING STDS FOR FIRST 3 OSI LAYERS
CRSS	2.1.1	DEFINE CUST INTERFACE STANDARDS PER ISO/OSI
CRSS	2.1.1.1	USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY
MRWG	SAAX0005(44)	CUSTOMER PACKAGE VERIFICATION
RFP	C-3-2.3.C	VERIFY FUNCTIONAL INTERFACES BEFORE LAUNCH
CRSS	1.1.5	MAXIMIZE USE OF STANDARD INTERFACES

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.4 NAME: DEVELOP HARDWARE INTEGRATION CONFIGURATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	6.1	D	3600.000	8.000
O	Y	F	6.5	D	3600.000	12.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.5
 PREPARED BY: EASTON
 REVISION: 1
 FUNCTION TYPE: C

NAME: SIMULATE SPACE STATION ELEMENTS
 REVISED BY: KRISHAN
 REVISION DATE: 04/24/85
 PROGRAM PHASE: B1,I,G
 ENTERED DATE: 04/24/85

DESCRIPTION:

EXECUTES COORDINATED HARDWARE SIMULATIONS FOR SELECTED HARDWARE ELEMENTS, INCLUDING ON SITE AND OFF SITE CUSTOMER AND CONTRACTOR HARDWARE.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y
 REQUIREMENTS:

NUMBER: 5

DOC PARAGRAPH NO. DESCRIPTION

CRSS 8.4.1	PROVIDE SIM FUNCTIONS TO VALIDATE PROCEDURES, SOFTWARE
CRSS 8.2.1.3	VERIFY ANCILLARY DATA FORMATS/CONTENT
RFP C-3-2.3.A	PAYLOAD PRELAUNCH VERIFICATION
CRSS 8.2.1.5	PROVIDE REMOTE ACCESS CRT DISPLAY VERIFICATION
CRSS 8.2.1.2	VERIFY FULL BREADTH OF COMMAND FROM FLT OR GND WORKSTATION
RFP C-3-2.3.B	MINIMIZE GSE DURING GROUND TEST
MRWG COMM1312(20)	GROUND CUSTOMER SYSTEM STATUS
RFP C-2-3.1.3	P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST
RFP C-3-2.3.C	VERIFY FUNCTIONAL INTERFACES BEFORE LAUNCH
RFP C-3-2.5.B	PROVIDE ON-BOARD TRAINING
CRSS 8.1.2	ACCEPT/RETURN CUSTOMER PAYLOAD TEST DATA
CRSS 8.2.1.1	VERIFY PROTOCOLS ABOVE PHYSICAL
MRWG SAAX0005(44)	CUSTOMER PACKAGE VERIFICATION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.5

NAME: SIMULATE SPACE STATION ELEMENTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	6.3	D	86400.000	9.000
O	N	E	ONSITEHW	D	86400.000	8.000
I	Y	F	6.4	D	3600.000	12.000
O	N	E	OFF SITE	D	3600.000	4.000
I	N	D	SIMMODEL	D	3600.000	20.000
I	Y	E	CUSTOP C	D	3600.000	0.500
I	Y	D	CORESTAT	D	3600.000	8.000
I	Y	E	ONSITEHW	D	3600.000	1.000
O	N	E	CUSTOP C	D	3600.000	7.500
I	Y	F	6.3	D	86400.000	9.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.6 NAME: DEVELOP SOFTWARE INTEGRATION CONFIGURATION
 PREPARED BY: EASTON REVISED BY: KRISHAN
 REVISION: 1 REVISION DATE: 01/01/80
 FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
 ENTERED DATE: 04/24/85

DESCRIPTION:
 ACCEPTS SOFTWARE INTEGRATION SIMULATION REQUIREMENTS. DETERMINES
 SOFTWARE INTERFACES AND SELECTS SOFTWARE SIMULATION ELEMENTS.

FUNCTION SOURCES: CRSS 8.2.1 CRSS 8.2.2
 CRSS 8.4.1

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS	5.4.4	PROVIDE STD INTERFACE TO CUST ENCRYP/DECRYPT EQPT
MRWG	COMM1213(32)	CUSTOMER SOFTWARE DEVELOPMENT SUPPORT
CRSS	1.1.5	MAXIMIZE USE OF STANDARD INTERFACES
RFP	C-3-2.3.C	VERIFY FUNCTIONAL INTERFACES BEFORE LAUNCH
CRSS	8.2.2	PROVIDE REMOTE, MENU-DRIVEN ACCESS TO SIMULATIONS
CRSS	8.4.1	PROVIDE SIM FUNCTIONS TO VALIDATE PROCEDURES, SOFTWARE
CRSS	8.2.1	PROVIDE REMOTELY ACCESSIBLE SSIS SOFTWARE SIMULATION
CRSS	2.1.1.1	USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY
CRSS	2.1.1	DEFINE CUST INTERFACE STANDARDS PER ISO/OSI
CRSS	2.1.2	USE EXISTING STDS FOR FIRST 3 OSI LAYERS
CRSS	2.1.2.1	USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL
CRSS	2.2.1	OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.6 NAME: DEVELOP SOFTWARE INTEGRATION CONFIGURATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	6.1	D	3600.000	14.000
O	Y	F	6.7	D	3600.000	15.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.7 NAME: SIMULATE SPACE STATION PROCESSORS
 PREPARED BY: EASTON REVISED BY: KRISHAN
 REVISION: 1 REVISION DATE: 01/01/80
 FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
 ENTERED DATE: 04/24/85

DESCRIPTION:
 EXECUTES COORDINATED SOFTWARE, SIMULATIONS FOR SELECTED SOFTWARE
 ELEMENTS AND RESIDENT PROCESSORS, INCLUDING CUSTOMER AND CONTRACTOR
 SOFTWARE AND SIMULATION SOFTWARE TO BE INTEGRATED.

FUNCTION SOURCES: CRSS 8.2.1.1 CRSS 8.2.1.2
 CRSS 8.2.1.3 CRSS 8.2.1.4

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-3-2.3.C	VERIFY FUNCTIONAL INTERFACES BEFORE LAUNCH
CRSS	8.2.1.2	VERIFY FULL BREADTH OF COMMAND FROM FLT OR GND WORKSTATION
CRSS	8.2.1.3	VERIFY ANCILLARY DATA FORMATS/CONTENT
CRSS	6.3.1	ONBOARD GENERATION OF CUST STORED COMMAND SEQUENCES
CRSS	8.1.2	ACCEPT/RETURN CUSTOMER PAYLOAD TEST DATA
CRSS	8.2.1	PROVIDE REMOTELY ACCESSIBLE SSIS SOFTWARE SIMULATION
CRSS	8.2.1.1	VERIFY PROTOCOLS ABOVE PHYSICAL
CRSS	8.2.1.4	VERIFY SSIS/DBMS/CUSTOMER INTERACTION
CRSS	8.2.1.5	PROVIDE REMOTE ACCESS CRT DISPLAY VERIFICATION
MRWG	COMM1213(32)	CUSTOMER SOFTWARE DEVELOPMENT SUPPORT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.7 NAME: SIMULATE SPACE STATION PROCESSORS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	CORESTAT	D	3600.000	20.000
I	Y	F	6.6	D	3600.000	15.000
O	N	E	CUSTOP C	D	3600.000	15.000
I	N	D	SIMMODEL	D	3600.000	18.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.1 NAME: DEFINE TRAINING PLAN
PREPARED BY: K.TODD REVISED BY: BOWMAN/EASTON
REVISION: 3 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 07/05/85

DESCRIPTION:
DETERMINE TRAINING COURSE CONTENT. DETERMINE THE NUMBER AND DURATION
OF EACH TYPE OF TRAINING SESSION FOR EACH OPERATOR. PROVIDE MASTER
SCHEDULING INPUTS FOR THE TRAINING OF EACH OPERATOR.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.1 NAME: DEFINE TRAINING PLAN

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	TRNPLAN	D	10000.000	4.000
O	N	D	TRNPLAN	D	10000.000	4.000
I	Y	D	MSTRPLAN	D	10000.000	6.000
O	Y	F	6.8.2	D	10000.000	1.500
I	Y	F	6.1	D	3600.000	6.000
O	Y	E	TRNINST	D	10000.000	1.500
I	N	D	TRNHIST	D	10000.000	4.000
I	N	D	DEV STAT	D	1000000.000	5.000
I	Y	E	CUST/OPR	D	10000.000	1.000

C - 5

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.2 NAME: DEFINE TRAINING SCRIPT
PREPARED BY: K.TODD REVISED BY: P.J. BOWMAN
REVISION: 2 REVISION DATE: 05/09/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 05/09/85

DESCRIPTION:
DETERMINE INITIAL CONDITIONS REQUIRED. DETERMINE THE SPECIFIC TASKS,
OBJECTIVES, AND TIMELINES OF A GIVEN TRAINING SESSION. DETERMINE
MALFUNCTIONS TO BE SIMULATED.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.2 NAME: DEFINE TRAINING SCRIPT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	6.8.3	D	10000.000	1.500
I	Y	E	TRNINST	D	10000.000	1.500
O	Y	F	6.8.6	D	10000.000	1.500
O	Y	F	6.8.5	D	10000.000	3.000
I	Y	F	6.8.1	D	10000.000	1.500
O	Y	F	6.8.4	D	10000.000	32.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.3 NAME: DEFINE MODEL REQUIREMENTS
PREPARED BY: K.TODD REVISED BY: P.J. BOWMAN
REVISION: 2 REVISION DATE: 05/09/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 05/09/85

DESCRIPTION:
SELECT MODELS REQUIRED (ENVIRONMENT, SYSTEMS, PAYLOADS). DETERMINE
MODEL FIDELITY REQUIRED.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.3 NAME: DEFINE MODEL REQUIREMENTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	D	SIMMODEL	D	10000.000	1.000
I	Y	F	6.8.2	D	10000.000	1.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.4 NAME: CONFIGURE SIMULATION
PREPARED BY: K.TODD REVISED BY: PHILIP JOHN BOWMAN
REVISION: 1 REVISION DATE: 01/01/80
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 04/22/85

DESCRIPTION:

INITIALIZE EACH MODEL IN PREPARATION FOR TRAINING SESSION. SET UP
PROPER HARDWARE/SOFTWARE INTERFACE. PROVIDE COMPATIBILITY AMONG THE
MODELS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 8
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.4 NAME: CONFIGURE SIMULATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	6.8.5	D	10000.000	512.000
I	Y	F	6.8.2	D	10000.000	32.000
I	Y	D	SIMMODEL	D	10000.000	384.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.5 NAME: CONDUCT TRAINING EXERCISE
PREPARED BY: K. TODD REVISED BY: P.J. BOWMAN
REVISION: 2 REVISION DATE: 05/09/85
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 05/09/85

DESCRIPTION:

PROCESS OPERATOR INPUTS. PRODUCE SIMULATED SYSTEMS OUTPUTS FROM THE
MODELS. ADJUST THE DIFFICULTY LEVEL OF THE SIMULATION UNTIL THE
OPERATOR ACHIEVES THE DESIRED LEVEL OF PERFORMANCE.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 26
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.5 NAME: CONDUCT TRAINING EXERCISE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	6.8.6	D	10000.000	12.000
O	Y	E	CUST/OPR	D	10.000	1.200
I	Y	F	6.8.4	D	10000.000	512.000
I	Y	F	6.8.2	D	10000.000	3.000
I	Y	E	CUST/OPR	D	100.000	12.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.6
PREPARED BY: K.TODD
REVISION: 2
FUNCTION TYPE: C

NAME: EVALUATE OPERATOR PERFORMANCE
REVISED BY: BOWMAN/EASTON
REVISION DATE: 06/21/85
PROGRAM PHASE: B1,I,G
ENTERED DATE: 07/05/85

DESCRIPTION:

RATE THE OPERATOR BASED ON THE ACCURACY OF RESPONSES DURING TRAINING.
DETERMINE OPERATOR RESPONSE TIME. DETERMINE OPERATOR SKILL.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 3

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.6

NAME: EVALUATE OPERATOR PERFORMANCE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	6.8.5	D	10000.000	12.000
I	Y	F	6.8.2	D	10000.000	1.500
O	N	E	CUST/OPR	D	10000.000	2.000
O	Y	F	6.8.7	D	10000.000	12.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.7 NAME: MAINTAIN OPERATOR TRAINING STATUS
PREPARED BY: K. TODD REVISED BY: BOWMAN/EASTON
REVISION: 2 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: I,G
ENTERED DATE: 07/05/85

DESCRIPTION:
RECORD OPERATOR EXPERIENCE AND TRAINING.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.8.7 NAME: MAINTAIN OPERATOR TRAINING STATUS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	D	TRNHIST	D	10000.000	8.000
O	N	D	TRNPLAN	D	10000.000	8.000
I	Y	F	6.8.6	D	10000.000	12.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.1 NAME: CONFIGURATION CONTROL & MANAGEMENT SUPPORT
 PREPARED BY: C. DASHIELL REVISED BY:
 REVISION: 0 REVISION DATE: 01/01/80
 FUNCTION TYPE: U PROGRAM PHASE: I
 ENTERED DATE: 04/04/85

DESCRIPTION:

SYSTEM TO FACILITATE DEFINITION OF S/W INCREMENTS, CONTROL
 CAPABILITY INCLUSION AND PROVIDE COST, SCHEDULE, PLANNING AND
 TRACKING OF ALL S/W CHANGES.

FUNCTION SOURCES: RFP C-9

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: Y
 REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

SPACE STATION SYSTEM OPERATIONAL REQUIREMENTS (J840062); NASA
 SOFTWARE MANAGEMENT REQUIREMENTS FOR FLIGHT PROJECTS-MNI2410.6
 (J8400134); REFERENCED GSFC, JSC, MSFC S/W CONFIG. DOCUMENTS; PROGRAM
 SIZE INCLUDES ONLY NEW & PORTED S/W (EXCLUDES COMMERCIAL S/W).

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.1 NAME: CONFIGURATION CONTROL & MANAGEMENT SUPPORT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	CMFILE	D	60.000	25.000
I	N	E	CUSTOP C	D	60.000	2.000
I	Y	E	NASA	D	600000.000	1.000
O	N	E	CUSTOP C	D	60.000	2.000
O	N	F	6.9.4	D	7200.000	15.000
O	Y	E	NASA	D	600000.000	1.000
I	N	D	CMFILE	D	60.000	25.000
I	N	F	6.9.4	D	7200.000	15.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.2 NAME: REQUIREMENTS ANALYSIS & GENERATION TOOLS
PREPARED BY: C. DASHIELL REVISED BY: P.J. BOWMAN
REVISION: 1 REVISION DATE: 05/09/85
FUNCTION TYPE: U PROGRAM PHASE: I
ENTERED DATE: 05/09/85

DESCRIPTION:

FACILITATES S/W REQUIREMENTS GENERATION AND MAINTENANCE, INCLUDING
ANALYSIS ROUTINES FOR CONSISTENCY CLOCKS. INCLUDES AUTOMATED
CONFIG. CONTROL OF REQUIREMENTS.

FUNCTION SOURCES: RFP C-9

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 50
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

REFERENCED GSFC, JSC & MSFC PRACTICS; PROGRAM SIZE INCLUDES
ONLY NEW & PORTED S/W (EXCLUDES COMMERCIAL S/W)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.2 NAME: REQUIREMENTS ANALYSIS & GENERATION TOOLS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	F	6.9.6	D	60.000	50.000
I	Y	E	CUSTOP C	D	120.000	2.000
I	N	F	6.9.6	D	60.000	50.000
O	N	E	CUSTOP C	D	120.000	2.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.3 NAME: DESIGN & CODE GENERATION
PREPARED BY: C. DASHIELL REVISED BY:
REVISION: 0 REVISION DATE: 01/01/80
FUNCTION TYPE: U PROGRAM PHASE: I
ENTERED DATE: 04/04/85

DESCRIPTION:
TOOLS AND PROCESS FOR USERS TO GENERATE AND MAINTAIN S/W DESIGN &
LANGUAGE TRANSLATORS AND STATIC ANALYSIS ROUTINES.

FUNCTION SOURCES: RFP C-9

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:
REFERENCED GSFC, JSC & MSFC PRACTICE; PROGRAM SIZE INCLUDES
ONLY NEW & PORTED S/W (EXCLUDES COMMERCIAL S/W)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.3 NAME: DESIGN & CODE GENERATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	F	6.9.6	D	10.000	50.000
O	N	E	CUSTOP C	D	1.000	50.000
O	N	D	SIMMODEL	D	2.000	50.000
I	Y	E	CUSTOP C	D	0.100	1.000
O	N	F	6.9.6	D	10.000	50.000
I	N	D	SIMMODEL	D	2.000	50.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.4 NAME: SYSTEM BUILD & DELIVERY
 PREPARED BY: C. DASHIELL REVISED BY:
 REVISION: 0 REVISION DATE: 01/01/80
 FUNCTION TYPE: U PROGRAM PHASE: I
 ENTERED DATE: 04/04/85

DESCRIPTION:
 PROCESS & TOOLS TO COLLECT S/W COMPONENTS & CREATE A PRODUCT FOR
 THE NEXT LEVEL IN S/W LIFE CYCLE. PROVIDES SUPPORT FOR SMALL
 SUBSYSTEMS, BUILDS THROUGH COMPLETE INTEGRATED S/W DELIVERY.

FUNCTION SOURCES: RFP C-9

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: T NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:
 REFERENCED GSFC, JSC, MSFC PRACTICE; PROGRAM SIZE INCLUDES ONLY
 NEW & PORTED CODE (EXCLUDES COMMERCIAL S/W)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.4 NAME: SYSTEM BUILD & DELIVERY

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	CUSTOP C	D	7200.000	1.000
I	N	F	6.9.8	D	7200.000	150.000
O	N	F	6.9.1	D	7200.000	15.000
I	N	F	6.9.6	D	7200.000	50.000
I	N	F	6.9.1	D	7200.000	15.000
O	N	F	6.9.6	D	7200.000	300.000
I	N	D	SIMMODEL	D	7200.000	250.000
O	N	E	CUSTOP C	D	7200.000	10.000
O	N	D	SIMMODEL	D	7200.000	250.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.5 NAME: TESTING & ANALYSIS

PREPARED BY: C. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 01/01/80

FUNCTION TYPE: U

PROGRAM PHASE: I

ENTERED DATE: 04/04/85

DESCRIPTION:

FACILITIES FOR USER MANAGEMENT OF RECON. DATA. FOR SELECTION OF DATA, AND FOR INTEGRATION OF DATA INTO S/W ELEMENTS.

FUNCTION SOURCES: RFP C-9

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

REFERRED JSC, GSFC, MSFC PRACTICE; PROGRAM SIZE INCLUDES ONLY NEW & PORTED CODE (EXCLUDES COMMERCIAL S/W)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.5 NAME: TESTING & ANALYSIS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	F	6.9.6	D	10.000	50.000
O	N	F	6.9.6	D	10.000	50.000
I	N	D	SIMMODEL	D	7200.000	50.000
I	Y	E	CUSTOP C	D	0.100	1.000
O	N	E	CUSTOP C	D	0.100	50.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.6 NAME: DOCUMENTATION

PREPARED BY: C. DASHIELL

REVISION: 0

FUNCTION TYPE: U

REVISED BY:

REVISION DATE: 01/01/80

PROGRAM PHASE: I

ENTERED DATE: 04/29/85

DESCRIPTION:

SYSTEM WHICH FACILITATES FORMAL & INFORMAL DOCUMENTS BOTH ONLINE & FOR HARD COPY. INCLUDES INTERFACE WITH 6.9.1 FOR OPTIONAL CONFIGURATION CONTROL OF DOCUMENTS. EXAMPLES OF APPLICATIONS INCLUDE INSTRUCTION MANUALS, MEMOS, PROG. DOCUMENTS, STATUS RPTS & USER GUIDES

FUNCTION SOURCES: RFP C-9

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 75

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.6 NAME: DOCUMENTATION

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
O	N	E	CUSTOP C	D	10.000	100.000
O	N	F	6.9.3	D	10.000	50.000
O	N	F	6.9.4	D	7200.000	50.000
O	N	F	6.9.2	D	60.000	50.000
I	N	F	6.9.4	D	7200.000	300.000
I	Y	E	CUSTOP C	D	10.000	100.000
I	N	F	6.9.3	D	10.000	50.000
I	N	F	6.9.2	D	60.000	50.000
O	N	D	SWDOCF	D	0.100	100.000
I	N	F	6.9.5	D	10.000	50.000
O	N	F	6.9.5	D	10.000	50.000
I	N	D	SWDOCF	D	0.100	100.000
I	N	D	CMFILE	D	10.000	150.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.7 NAME: COMMUNICATIONS

PREPARED BY: C. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 01/01/80

FUNCTION TYPE: U

PROGRAM PHASE: I

ENTERED DATE: 04/04/85

DESCRIPTION:

PROCESS THAT PROVIDES INTER- AND INTRA-SITE COMMUNICATION OF INFORMATION ASSOCIATED WITH S/W DEVELOPMENT FOR ALL DISTRIBUTED USERS.

FUNCTION SOURCES: RFP C-9

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 50

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

SPACE STATION INFORMATION SYSTEM (SSIS) FINAL STUDY REPORT (J8400097); PROGRAM SIZE INCLUDES ONLY NEW & PORTED CODE (EXCLUDES COMMERCIAL S/W)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.7 NAME: COMMUNICATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	SIMMODEL	D	4.000	250.000
O	N	E	CUSTOP C	D	1.000	150.000
O	N	E	TMIS	D	4.000	100.000
O	N	F	SWDOCF	D	4.000	100.000
I	N	D	CMFILE	D	4.000	10.000
O	N	D	CMFILE	D	4.000	1.000
O	N	D	SIMMODEL	D	4.000	250.000
I	Y	E	CUSTOP C	D	1.000	150.000
I	Y	E	TMIS	D	4.000	100.000
I	N	D	SWDOCF	D	4.000	100.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.8 NAME: RECONFIGURATION DATA MANAGEMENT
PREPARED BY: C. DASHIELL REVISED BY:
REVISION: 0 REVISION DATE: 01/01/80
FUNCTION TYPE: U PROGRAM PHASE: I
ENTERED DATE: 04/09/85

DESCRIPTION:
FACILITIES FOR USER MANAGEMENT OF RECON DATA. FOR SELECTION OF DATA,
AND FOR INTEGRATION OF DATA INTO S/W ELEMENTS.

FUNCTION SOURCES: RFP C-9

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:
-REFERENCED JSC, GSFC, MSFC PRACTICE
-PROGRAM SIZE INCLUDES ONLY NEW & PORTED CODE (EXCLUDES
COMMERCIAL S/W)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 6.9.8 NAME: RECONFIGURATION DATA MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	CMFILE	D	10.000	1.000
I	Y	E	CUSTOP C	D	10.000	5.000
O	N	F	6.9.4	D	7200.000	150.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.1 NAME: ANALYZE SYSTEM PERFORMANCE

PREPARED BY: Anonymous

REVISED BY:

REVISION: 0

REVISION DATE: 01/01/80

FUNCTION TYPE: C

PROGRAM PHASE: I

ENTERED DATE: 04/05/85

DESCRIPTION:

ANALYZES SYSTEM OPERATING EXPERIENCE TO IMPROVE MTBF AND CONSUMABLES
USAGE RATES. IDENTIFIES ANOMALLIES, MONITORS INVENTORIES, AND MAIN-
TAINS USAGE HISTORY.

FUNCTION SOURCES: RFP C-4-2.1.14

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.1 NAME: ANALYZE SYSTEM PERFORMANCE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	CORESTAT	C	10000.000	10.000
O	N	E	LOG OPER	C	10000.000	10.000
I	N	D	MATL USE	C	10000.000	500.000
I	N	D	INVENTORY	C	10000.000	500.000
I	N	D	FAC STAT	C	10000.000	10.000
O	N	D	MATL USE	C	10000.000	500.000
I	N	D	P/L STAT	C	10000.000	10.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.2 NAME: DETERMINE EFFECTS ON INTEGRATED PLAN
PREPARED BY: REVISED BY:
REVISION: 0 REVISION DATE: 01/01/80
FUNCTION TYPE: C PROGRAM PHASE: B4,I,G
ENTERED DATE: 04/05/85

DESCRIPTION:
CONTINUING ANALYSIS OF INTEGRATED LOGISTICS PLAN TO DETERMINE EFFECTS
OF PROGRAM CHANGES ON PLANS. UPDATES PLANS ACCORDING TO APPROVED
CHANGES.

FUNCTION SOURCES: RFP C-4-2.1.14

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.2 NAME: DETERMINE EFFECTS ON INTEGRATED PLAN

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	LOG OPER	D	10000.000	10.000
O	Y	D	LOG PLAN	D	10000.000	100.000
O	N	F	7.1.3	D	10000.000	100.000
O	N	E	LOG OPER	D	10000.000	100.000
I	N	D	LOG PLAN	D	10000.000	3000000.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.3 NAME: ANALYZE AFFECTED PLANS
PREPARED BY: REVISED BY:
REVISION: 0 REVISION DATE: 01/01/80
FUNCTION TYPE: C PROGRAM PHASE: B4,I,G
ENTERED DATE: 04/09/85

DESCRIPTION:
GANALYZES PLANS AFFECTED BY A PROPOSED CHANGE AND PROVIDES IMPACTS TO
LOGISTICS OPERATIONS.

FUNCTION SOURCES: RFP C-4-2.1.14

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.3 NAME: ANALYZE AFFECTED PLANS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	LOG OPER	D	10000.000	100.000
I	N	D	LOG PLAN	D	10000.000	3000000.000
I	N	F	7.1.2	D	10000.000	100.000
I	Y	E	LOG OPER	D	10000.000	10.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.4 NAME: ANALYZE IMPACT OF PROGRAM CHANGES
PREPARED BY: REVISED BY: P.J. BOWMAN
REVISION: 1 REVISION DATE: 05/17/85
FUNCTION TYPE: C PROGRAM PHASE: G
ENTERED DATE: 05/20/85

DESCRIPTION:
REVIEWS PROGRAM PLANS AND CHANGES FOR IMPACT ON INTEGRATED LOGISTICS
PLAN. NOTIFIES LOGISTICS OPERATOR OF REQUIRED CHANGES.

FUNCTION SOURCES: RFP C-4-2.1.14

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.1.4 NAME: ANALYZE IMPACT OF PROGRAM CHANGES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
		TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
O	N	E	LOG OPER	D	100000.000	100.000
I	N	D	LOG PLAN	D	3000000.000	3000000.000
I	Y	E	TMIS	D	100000.000	100.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.2 NAME: LOG CUSTOMER USAGE OF SYSTEM
 PREPARED BY: C. R. EASTON REVISED BY: BOWMAN/EASTON
 REVISION: 1 REVISION DATE: 06/21/85
 FUNCTION TYPE: U PROGRAM PHASE: I,G,B7
 ENTERED DATE: 07/05/85

DESCRIPTION:

INTERROGATES PAYLOAD, CORE AND FACILITIES STATUS FILES AND
 IDENTIFIES SYSTEM RESOURCE USAGE BY CUSTOMER. PROVIDES REPORTS
 TO CUSTOMER AND PROGRAM. REPORTS PAYLOAD EVENT HISTORY.

FUNCTION SOURCES: CRSS 7.4.1 CRSS 7.4.3.1
 CRSS 7.4.4

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 7.4.1	PROVIDE P/L EVENT HISTORY OPERATIONS REPORT TO CUST
CRSS 7.4.3	REPORT SSIS RESOURCE DEMANDS TO CUSTOMER
CRSS 7.4.3.1	REPORT SSIS RESOURCE DEMAND TO CUSTOMER
CRSS 7.4.4	REPORT SSIS RESOURCE USAGE TO CUSTOMER

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.2 NAME: LOG CUSTOMER USAGE OF SYSTEM

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	FAC STAT	C	1600.000	2.000
I	N	D	CREWTASK	C	1600.000	2.000
I	N	D	CORESTAT	C	1600.000	2.000
I	N	D	P/L STAT	C	1600.000	2.000
O	N	E	CUSTOMER	C	1600.000	5.000
O	N	E	TMIS	C	1600.000	5.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.1 NAME: ANALYZE SYSTEM OPERATION
PREPARED BY: REVISED BY:
REVISION: 0 REVISION DATE: 01/01/80
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 04/05/85

DESCRIPTION:
COMPARES ACTUAL OPERATIONS PROCEDURES AND CHECKLISTS FOLLOWED AND
OPERATOR CHANGE RECOMMENDATIONS WITH CURRENT PROCEDURES. DETERMINES
ACCEPTABLE CHANGES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.1 NAME: ANALYZE SYSTEM OPERATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	LOG OPER	D	1000000.000	0.100
I	N	D	TECH DOC	D	1000000.000	1000.000
I	Y	E	OPERATOR	D	1000000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.2 NAME: UPDATE TECHNICAL DOCUMENTS
PREPARED BY: REVISED BY:
REVISION: 0 REVISION DATE: 01/01/80
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 04/05/85

DESCRIPTION:
INCOPORATES APPROVED CHANGES INTO TECHNICAL DOCUMENTS.

FUNCTION SOURCES: RFP C-3-3.4A RFP C-4-

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.2 NAME: UPDATE TECHNICAL DOCUMENTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	LOG OPER	D	1000000.000	10.000
O	N	D	TECH DOC	D	1000000.000	10.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.3 NAME: ANALYZE PROGRAM CHANGES
PREPARED BY: REVISED BY:
REVISION: 0 REVISION DATE: 01/01/80
FUNCTION TYPE: C PROGRAM PHASE: B2,I,G
ENTERED DATE: 04/05/85

DESCRIPTION:
REVIEWS PROGRAM PLANS AND CHANGES
FOR IMPACT IN PROCEDURES AND CHECKLISTS. NOTIFIES
LOGISTICS OPERATOR OF REQUIRED CHANGES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.3 NAME: ANALYZE PROGRAM CHANGES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	LOG OPER	D	1000000.000	10.000
I	Y	E	TMIS	D	1000000.000	100.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.4 NAME: TRANSMIT PROCEDURES
PREPARED BY: REVISED BY:
REVISION: 0 REVISION DATE: 01/01/80
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 04/05/85

DESCRIPTION:
LOADS SPECIFIC PROCEDURES AND CHECKLISTS INTO PROCEDURES FILE AVAIL-
ABLE AT EACH LOCATION TO ENSURE NEEDED PROCEDURES ARE AVAILABLE

FUNCTION SOURCES: RFP C-4-2.1.11-1

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.3.4 NAME: TRANSMIT PROCEDURES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	PROCEDUR	D	10000.000	10.000
I	Y	E	OPERATOR	D	100000.000	0.100
I	Y	D	SHORTSCH	D	10000.000	1.000
I	N	D	TECH DOC	D	10000.000	10.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.4.1 NAME: MONITOR CUSTOMER INVENTORIES
PREPARED BY: REVISED BY:
REVISION: 0 REVISION DATE: 01/01/80
FUNCTION TYPE: U PROGRAM PHASE: B5,I,G
 ENTERED DATE: 04/05/85

DESCRIPTION:
MAINTAINS RECORD OF CUSTOMER EQUIPMENT, LOCATION, STAKES, AND CONFIG-
URATION. MONITORS SPARES AND CONSUMABLES.

FUNCTION SOURCES: CRSS 7.1.4

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 7.1.4 SUPPORT CUSTOMER LOGISTICS CONTROL

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.4.1 NAME: MONITOR CUSTOMER INVENTORIES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	NSTS CTL	D	10000000.000	10.000
I	N	D	FAC STAT	C	10000.000	20.000
O	N	E	CUSTOMER	C	1000.000	1.000
O	N	D	CUST INV	C	1000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.4.2 NAME: MONITOR STATION INVENTORIES
PREPARED BY: REVISED BY:
REVISION: 0 REVISION DATE: 01/01/80
FUNCTION TYPE: C PROGRAM PHASE: B1,I,G
ENTERED DATE: 04/05/85

DESCRIPTION:
MAINTAINS RECORD OF SPACE STATION EQUIPMENT, LOCATION, STATUS, AND
CONFIGURATION. MONITORS SPORES AND CONSUMABLES.

FUNCTION SOURCES: RFP C-4-2.1.14.D

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.4.2 NAME: MONITOR STATION INVENTORIES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	NSTS CTL	D	10000000.000	10.000
I	N	D	FAC STAT	C	10000.000	20.000
I	Y	E	TMIS	D	1000000.000	10.000
O	N	D	STAT INV	C	3600.000	20.000
O	N	E	OPERATOR	C	10000.000	10.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.4.3 NAME: MONITOR GROUND FACILITY INVENTORIES.
PREPARED BY: REVISED BY:
REVISION: 0 REVISION DATE: 01/01/80
FUNCTION TYPE: C PROGRAM PHASE: I,G,B1
ENTERED DATE: 04/05/85

DESCRIPTION:
MAINTAINS RECORD OF GROUND FACILITY EQUIPMENT LOCATION, STATUS, AND
CONFIGURATION. MONITORS SPARES AND CONSUMABLES.

FUNCTION SOURCES: RFP C-4-2.1.14D

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.4.3 NAME: MONITOR GROUND FACILITY INVENTORIES.

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	GND F INV	C	100000.000	20.000
O	N	E	GND OPR	C	100000.000	10.000
I	N	D	FAC STAT	C	100000.000	10.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.5 NAME: CONFIGURATION MANAGEMENT
PREPARED BY: C. R. EASTON REVISED BY: BOWMAN/EASTON
REVISION: 1 REVISION DATE: 06/21/85
FUNCTION TYPE: C PROGRAM PHASE: I,G,B1
ENTERED DATE: 07/05/85

DESCRIPTION:
MAINTAINS CURRENT MASS PROPERTIES AND EQUIPMENT LISTS FOR
SPACE STATION, PLATFORMS, AND APPROPRIATE GROUND FACILITIES

FUNCTION SOURCES: CRSS 7.1.1

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 1
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 7.1.1 CONFIGURATION MANAGEMENT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 7.5 NAME: CONFIGURATION MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	Y	E	TMIS	D	1000000.000	10.000
O	N	D	MASSPROP	D	1000000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.1P NAME: ACQUIRE REALTIME DATA
PREPARED BY: J. N. DASHIELL REVISED BY:
REVISION: 0 REVISION DATE: 07/10/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/10/85

DESCRIPTION:
RESERVE STAGING BUFFERS FOR ENGINEERING DATA, POLL AND MOVE CYCLIC
DATA TO STAGING BUFFERS, ACCEPT TELECOMMANDS AND ACKNOWLEDGEMENTS
INTO STAGING BUFFERS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.1P NAME: ACQUIRE REALTIME DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	PLAT P/L	C	0.100	4.000
O	N	D	R/T BUFF	C	0.100	7.000
I	Y	E	CORESIST	C	0.100	2.000
O	Y	F	1.1.2P	C	0.100	0.040

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.2P NAME: PRIORITIZE REALTIME DATA
PREPARED BY: J. N. DASHIELL REVISED BY:
REVISION: 0 REVISION DATE: 07/10/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/10/85

DESCRIPTION:
CONTROL TELEMETRY FORMATTED BUFFER BUILDING BY PRIORITIZING
UNFORMATTED BUFFERS ACQUIRED IN REAL TIME; COORDINATE REALTIME
DATA TELEMETRY SERVICE REQUESTS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.2P NAME: PRIORITIZE REALTIME DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.1.1P	C	0.100	0.040
I	Y	D	PRIORITY	D	86000.000	0.040
O	Y	F	1.1.5P	C	0.100	5.000
I	Y	D	R/T BUFF	C	0.100	0.150

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.3P NAME: MONITOR REALTIME DATA
PREPARED BY: J. N. DASHIELL REVISION DATE: 07/10/85
REVISION: 0 PROGRAM PHASE:
FUNCTION TYPE: C ENTERED DATE: 07/10/85

DESCRIPTION:
MONITOR REALTIME DATA TO BE TRANSMITTED; SCHEDULE DISPATCHING DATA;
RECORD DATA TRANSMISSIONS; MONITOR LINK AVAILABILITY; SCHEDULE DELAY
OF REALTIME DATA FOR LINK LOSS; CONTROL COMMUNICATIONS CHANNELS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 7.1.1 CUSTOMER DATA TRACKING

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.3P NAME: MONITOR REALTIME DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	D	DATAACCT	D	60.000	0.150
I	Y	D	R/T BUFF	C	0.100	0.150
I	Y	F	4.2.5.7P	D	60.000	0.070
O	Y	F	4.2.5.7P	D	60.000	0.070
O	Y	F	1.1.4P	C	60.000	0.070

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.4P NAME: DISPATCH REALTIME DATA
PREPARED BY: J. N. DASHIELL REVISED BY:
REVISION: 0 REVISION DATE: 07/10/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/10/85

DESCRIPTION:
CONTROL TRANSMISSION OF REALTIME DATA TO COMMUNICATION PROCESSOR;
STORE DATA IN BUFFERS DURING LINK LOSS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.4P NAME: DISPATCH REALTIME DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.1.5P	C	0.100	0.035
I	N	D	R/T BUFF	C	0.100	4.000
O	Y	F	1.3.1	C	0.100	3.000
O	N	D	DELAYDAT	C	0.100	3.000
I	Y	F	1.1.3P	C	60.000	0.070

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.5P NAME: FORMAT REALTIME DATA
PREPARED BY: J. N. DASHIELL REVISED BY:
REVISION: 0 REVISION DATE: 07/10/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/10/85

DESCRIPTION:
BUILD FORMATTED TELEMETRY BUFFERS; PRIORITIZE MULTIPLE DATA SOURCES;
SIGNAL DISPATCH FUNCTION WHEN TELEMETRY BUFFERS ASSEMBLED.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.1.5P NAME: FORMAT REALTIME DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	1.1.2P	C	0.100	5.000
O	Y	F	1.1.4P	C	0.100	0.035
I	N	D	R/T BUFF	C	0.100	5.000
O	N	D	R/T BUFF	C	0.100	5.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.1P NAME: ACQUIRED DELAYED PAYLOAD DATA
PREPARED BY: J. N. DASHIELL REVISED BY:
REVISION: 0 REVISION DATE: 07/10/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/11/85

DESCRIPTION:
RESERVE BUFFERS FOR DELAYED DATA; MOVE DELAYED DATA TO BUFFERS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.1P NAME: ACQUIRED DELAYED PAYLOAD DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	PLAT P/L	D	1.000	350.000
O	N	D	DELAYDAT	D	1.000	400.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.2P NAME: PRIORITIZE DELAYED DATA
PREPARED BY: J. N. DASHIELL REVISION DATE: 07/10/85
REVISION: 0 PROGRAM PHASE:
FUNCTION TYPE: C ENTERED DATE: 07/11/85

DESCRIPTION:
CONTROL DELAYED TELEMETRY BUFFER BUILDING BY PRIORITIZING UNFORMATTED
DELAYED DATA; COORDINATE BULK TELEMETRY SERVICE REQUESTS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.2P NAME: PRIORITIZE DELAYED DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	DELAYDAT	D	1.000	0.030
I	Y	D	PRIORITY	D	86000.000	0.030
O	Y	F	1.2.4P	D	1000.000	0.070

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.3P NAME: MONITOR DELAYED DATA

PREPARED BY: J. N. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

MONITOR DELAYED DATA TO BE TRANSMITTED; SCHEDULE DISPATCHING OF DATA;
RECORD DATA TRANSMISSIONS; MONITOR LINK AVAILABILITY; CONTROL
COMMUNICATION LINK CHANNELS; INHIBIT DATA ACQUISITION FOR FULL
BUFFERS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

CRSS 7.1.1 CUSTOMER DATA TRACKING

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.3P NAME: MONITOR DELAYED DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	D	DATAACCT	D	60.000	0.140
O	Y	F	1.2.4P	D	60.000	0.070
O	Y	F	4.2.5.7P	D	60.000	0.070
I	Y	D	DELAYDAT	D	1000.000	0.140
I	Y	F	4.2.5.7P	D	60.000	0.070

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.4P NAME: DISPATCH DELAYED DATA
PREPARED BY: J. N. DASHIELL REVISED BY:
REVISION: 0 REVISION DATE: 07/10/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/11/85

DESCRIPTION:
CONTROL TRANSMISSION OF DELAYED DATA TO COMMUNICATION PROCESSOR.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.4P NAME: DISPATCH DELAYED DATA

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
O	N	F	1.3.2	C	1.000	350.000
I	Y	F	1.2.3P	D	60.000	0.070
I	N	D	DELAYDAT	C	1000.000	2200000.000
I	Y	F	1.2.2P	D	1000.000	0.070

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.5P NAME: FORMAT DELAYED DATA
PREPARED BY: J. N. DASHIELL REVISED BY:
REVISION: 0 REVISION DATE: 07/10/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/11/85

DESCRIPTION:
BUILD DELAYED DATA TELEMETRY BUFFERS; PRIORITIZE MULTIPLE DATA
SOURCES; SIGNAL DISPATCH FUNCTION WHEN DELAYED DATA BUFFERS
ASSEMBLED.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.2.5P NAME: FORMAT DELAYED DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	DELAYDAT	D	1.000	350.000
I	Y	D	DATAACCT	D	1.000	1.000
I	Y	D	CORESTAT	D	1.000	20.000
O	N	D	DELAYDAT	D	1.000	350.000
I	Y	D	P/L STAT	D	1.000	10.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.1P NAME: CORE DATA INTERFACE MANAGEMENT
PREPARED BY: FACC/LANDI REVISD BY:
REVISION: 0 REVISION DATE: 07/09/85
FUNCTION TYPE: D PROGRAM PHASE:
ENTERED DATE: 07/10/85

DESCRIPTION:
PROVIDES STANDARD INTERFACES AT ISO/OSI LEVELS 1-3, INCLUDING
MESSAGE/PACKET CONVERSION; PERFORMS ERROR CONTROL, QUALITY CHECKING,
ACCESS CONTROL; HANDLES DATA, VOICE, VIDEO.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.1P NAME: CORE DATA INTERFACE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	1.3.3	D	16.000	0.050
I	Y	F	1.3.3	C	0.128	1.000
O	Y	F	1.5.2P	C	0.128	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.2P NAME: CORE DATA CAPTURE

PREPARED BY: FACC/LANDI

REVISED BY:

REVISION: 0

REVISION DATE: 07/09/85

FUNCTION TYPE: D

PROGRAM PHASE:

ENTERED DATE: 07/10/85

DESCRIPTION:

PROVIDES ROUTINE CAPTURE OF OPERATOR DATA; PERFORMS ORDER REVERSAL AS NECESSARY.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.2P NAME: CORE DATA CAPTURE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	DATAACCT	C	11.000	0.050
O	N	D	COREBUFF	C	0.128	1.000
O	Y	F	1.5.3P	C	0.128	1.000
I	Y	F	1.5.1P	C	0.128	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.3P NAME: DATA EXTRACTION

PREPARED BY: FACC

REVISION: 0

FUNCTION TYPE: D

REVISED BY:

REVISION DATE: 07/09/85

PROGRAM PHASE:

ENTERED DATE: 07/10/85

DESCRIPTION:

EXTRACTS OPERATOR SOURCE DATA FROM PACKETS FOR LOCAL (FACILITY) DISTRIBUTION.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

CRSS 3.4.1.4 ARCHIVE ENGR./ANC DATA FOR AT LEAST TWO YEARS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.3P NAME: DATA EXTRACTION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	ENGRDATA	C	0.128	1.000
O	N	D	DATAACCT	C	1.000	0.050
I	Y	D	COREBUFF	D	0.128	1.000
I	Y	F	1.5.2P	C	0.128	1.000
O	N	F	1.5.4P	C	0.128	1.000
O	N	D	S/T ARCH	C	0.128	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.4P NAME: DISPLAYS AND CONTROLS
PREPARED BY: FACC/LANDI REVISED BY:
REVISION: 0 REVISION DATE: 07/09/85
FUNCTION TYPE: D PROGRAM PHASE:
ENTERED DATE: 07/10/85

DESCRIPTION:

PROVIDES THE MAN/MACHINE INTERFACE FOR MONITORING OF CORE DATA,
HANDLING OF VOICE AND VIDEO DATA. AND RESPONDING TO OPERATOR
REQUESTS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

SUPPORT A USER-FRIENDLY LANGUAGE (COMMON TO VARIOUS SSPE'S)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.4P NAME: DISPLAYS AND CONTROLS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	S/T ARCH	D	100.000	1.000
O	N	E	OPERATOR	C	1.000	8.000
I	Y	E	OPERATOR	D	100.000	0.050
I	N	F	1.5.3P	C	0.128	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.5P NAME: ENGINEERING DATA ANALYSIS
PREPARED BY: FACC REVISED BY:
REVISION: 0 REVISION DATE: 07/09/85
FUNCTION TYPE: D PROGRAM PHASE:
ENTERED DATE: 07/10/85

DESCRIPTION:
PERFORMS LONG-TERM TREND/PERFORMANCE ANALYSIS OF ARCHIVED CORE
ENGINEERING DATA.

FUNCTION SOURCES: CRSS 3.4.1.4

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 3.4.1.4 ARCHIVE ENGR./ANC DATA FOR AT LEAST TWO YEARS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.5P NAME: ENGINEERING DATA ANALYSIS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	ENGRDATA	D	0.320	0.100
I	N	D	ENGRDATA	D	0.320	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.6P NAME: CORE DATA ACCOUNTING
PREPARED BY: FACC/LANDI REVISION DATE: 07/09/85
REVISION: 0 PROGRAM PHASE:
FUNCTION TYPE: D ENTERED DATE: 07/10/85

DESCRIPTION:
MAINTAINS ACCOUNTS OF AND MANAGES THE TRANSFERS OF CORE DATA TO THE
ENGINEERING DATA CENTER; SUPPORTS THE RETRIEVAL OF CORE DATA FROM
LOCAL AND ARCHIVAL DATA STORAGE UPON OPERATOR REQUEST.

FUNCTION SOURCES: CRSS 3.4.1.4 RFP C-4-2.2.5.3.E

CRITICALITY - RECOVERY TIME: 4 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:
CAPABILITY TO EXTRACT AT LEAST TWO TYPES OF DATA SET SELECTORS AND
PRESENT DATA IN ESTABLISHED FORMATS: 1) PLAYBACK OF ALL TELEMETRY
DATA OVER A SELECTED TIME PERIOD; 2) EXTRACTION OF A SELECTED SUBSET
OF PARAMETERS OVER A SELECTED TIME PERIOD.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 1.5.6P NAME: CORE DATA ACCOUNTING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	OPERATOR	D	100.000	1.000
I	N	D	DATAACCT	C	1.000	0.050
I	Y	E	OPERATOR	D	100.000	0.100
I	N	D	ENGRDATA	D	100.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.1P NAME: VALIDATE PLATFORM PAYLOAD COMMANDS DATA
 PREPARED BY: T.CHIANG REVISED BY:
 REVISION: 0 REVISION DATE: 07/03/85
 FUNCTION TYPE: U PROGRAM PHASE:
 ENTERED DATE: 07/05/85

DESCRIPTION:

CHECKS TO SEE THAT CUSTOMER IS AUTHORIZED TO THE SPECIFIED ADDRESS
 AND DURING THE SPECIFIED TIME PROVIDES ACCOUNTING FOR ALL CUSTOMER
 PAYLOAD UPLINKED COMMANDS/DATA.

FUNCTION SOURCES: CRSS SEC 6

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS	5.4.1	PROVIDE DIGITAL DATA COMM AMONG ELEMENTS
CRSS	5.2.8	DESIGN VIDEO DIST ACCESS TO UNAUTHORIZED CUSTOMERS
CRSS	3.2.2	PROVIDE CUSTOMER DATA ACCOUNTABILITY
CRSS	6.1.4	CHECK CUSTOMER ID TO INSURE AUTHORIZATION
CRSS	2.2.3	PACKETIZE SSIS/SCS TO CUST COMPUTER INTERCHANGE
CRSS	5.4.4	PROVIDE STD INTERFACE TO CUST ENCRYPT/DECRYPT EQPT
CRSS	2.1.1.1	USE INTERNAT'L INTERFACE STDS AS FIRST PRIORITY
CRSS	2.1.2	USE EXISTING STDS FOR FIRST 3 OSI LAYERS
CRSS	6.1.2	SUPP P/L COMMAND GENERATION FROM CUST FOR GND CTL CTR, SS
RFP	C-4-2.2.6.2.I	SECURE COMMUNICATION LINKS: COMMAND AUTHENTICATION
CRSS	2.1.2.1	USE EXISTING STD FOR OTHER LAYERS WHERE PRACTICAL
CRSS	6.1.5.2.4	PERMIT CUST TO GENERATE CONTROLS FROM WORKSTATION
CRSS	2.1.1	DEFINE CUST INTERFACE STANDARDS PER ISO/OSI
CRSS	6.1.5	SUPPORT CUST P/L INTERACTION BY REMOTE TERMINALS
CRSS	2.2.1	OBTAIN/DEV STD FOR ALL CUSTOMER INTERFACES
CRSS	6.1.5.1	WORK STATIONS GENERATE CMMDS, ALLOWS SSIS COMM
MRWG	TDMX2020(52)	COMMAND ENTRY

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.1P NAME: VALIDATE PLATFORM PAYLOAD COMMANDS DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	PLAT P/L	D	40.000	1.000
I	Y	D	AUTHENT	D	25.300	1.000
O	Y	D	CMMD LOG	D	14.600	1.000
O	Y	F	2.2P	D	12.300	1.000
I	Y	E	CUSTOMER	D	2.500'	1.000
O	Y	E	CUSTOMER	D	40.900	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.2P NAME: CHECK PLATFORM P/L COMMAND RESTRICTION/CONSTRAINT
 PREPARED BY: T. CHIANG REVISED BY: BOWMAN/EASTON
 REVISION: 1 REVISION DATE: 07/03/85
 FUNCTION TYPE: U PROGRAM PHASE:
 ENTERED DATE: 07/05/85

DESCRIPTION:

CHECK CUSTOMER COMMANDS TO DETERMINE IF THEY REQUIRE SERVICE FROM THE DATA SYSTEM. TYPICAL SERVICE REQUESTS ARE MODE CHANGE COMMANDS AND OPERATION SCHEDULE REQUESTS.

FUNCTION SOURCES: CRSS SEC 6

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS	6.1.6	CHECK FOR COMMAND RESTRICTION
CRSS	6.1.6.3	PASS THROUGH NON-RESTRICTED COMMANDS
CRSS	7.2.5	PROVIDE RESTRICTED COMMANDS LIST
RFP	C-2-3.1.3	PAYLOAD OPERATION CONSTRAINTS LIMITED TO SAFETY AND COMPATIB
CRSS	7.3.4.1	RETURN DISPOSITION/REASON ON COMMANDS
CRSS	6.1.7	PERMIT INDEPENDENT NON-RESTR CUST OPS, MAINT. CTL, SAFETY
RFP	C-2-3.1.3	P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO CUST
CRSS	3.2.2	PROVIDE CUSTOMER DATA ACCOUNTABILITY
CRSS	7.2.6	SUPPORT RAPID REPLANNING FOR OPPORTUNITIES
CRSS	7.3.4.1	LOGICALLY SEPARATE RESTR/CONSTR CMMDS FROM GEN UPLINK
MRWG	TDMX2020(52)	COMMAND ENTRY
CRSS	7.4.1	PROVIDE P/L EVENT HISTORY OPERATIONS REPORT TO CUST
CRSS	6.1.3.1	RESTRICTED/CONSTRAINED COMMAND INHIBITION, TRANSMISSION

ADDITIONAL REQUIREMENTS:

PROVIDE COMMAND MANAGEMENT TO PROTECT THE SYSTEM FROM EXECUTING INADVERTENT AND UNAUTHORIZED (AND RESTRICTED) PAYLOAD COMMANDS THAT MAY AFFECT CREW SAFETY AND/OR DAMAGE THE STATION.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.2P NAME: CHECK PLATFORM P/L COMMAND RESTRICTION/CONSTRAINT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	3.3.2P	D	10.000	1.000
O	Y	E	PLAT P/L	D	12.400	1.000
O	Y	D	CMMD LOG	D	14.600	1.000
O	Y	F	2.5.2P	D	20.000	0.200
I	Y	F	2.1P	D	12.300	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.1P NAME: AUTHORIZE OPERATOR
PREPARED BY: KILLINGBECK REVISED BY: P. J. BOWMAN
REVISION: 1 REVISION DATE: 07/11/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/11/85

DESCRIPTION:

OBTAIN OPERATOR ID. VALIDATE OPERATOR ID VERSUS AUTHENTICATION DATA
BASE. SIGNAL DISPOSITION TO OPERATOR (ACCEPTED OR REJECTED). GET SET
OF AUTHORIZED OPERATIONS FOR THIS OPERATOR FROM AUTHENTICATION
DATA BASE AND PROVIDE TO 2.3.2.

FUNCTION SOURCES: C-4-2.2.5.3.K C-4-7.3.4.1

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.1P NAME: AUTHORIZE OPERATOR

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	AUTHENT	D	10000.000	1.000
O	Y	F	2.3.2P	D	10000.000	1.000
O	N	E	OPERATOR	D	10000.000	1.000
I	Y	E	OPERATOR	D	10000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.2P NAME: AUTHORIZE OPERATION

PREPARED BY: KILLINGBECK

REVISED BY: BOWMAN

REVISION: 1

REVISION DATE: 07/11/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

OBTAIN CORE CMMD OR DATA FROM OPERATOR. VALIDATE OPERATION VS. LIST OF
 AUTHORIZED OPERATIONS FROM 2.3.1, & VS. SYS OPERATING MODE. GENERATE
 CMMD LOG. PROVIDE VALIDATED OPERATION TO 3.3 (SCHED) &/OR 4.0
 (OPERATE CORE SYSTEM). SIGNAL DISPOSITION TO OPERATOR.

FUNCTION SOURCES: C-4-2.2.5.3.K

C-4-7.3.4.1

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
 REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.3.2P NAME: AUTHORIZE OPERATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	2.3.1P	D	10000.000	1.000
I	Y	E	OPERATOR	D	10000.000	1.000
O	N	D	PROCEDUR	D	100000.000	20.000
O	N	D	CMMD LOG	D	10000.000	1.000
O	Y	F	4.OP	D	10000.000	1.000
O	N	E	OPERATOR	D	10000.000	1.000
I	N	D	CORESTAT	D	10000.000	1.000
O	Y	F	3.3.2P	D	10000.000	1.000
O	Y	F	5.1.3.2	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.4P NAME: PROVIDE ANCILLARY DATA
 PREPARED BY: J. N. DASHIELL REVISED BY:
 REVISION: 0 REVISION DATE: 07/10/85
 FUNCTION TYPE: C PROGRAM PHASE:
 ENTERED DATE: 07/11/85

DESCRIPTION:

ACCEPT REQUEST FOR ANCILLARY DATA FROM PAYLOAD AND CUSTOMER SYSTEM
 INTERFACE. RETRIEVE REQUESTED DATA FROM CORE STATUS DATA STORE.
 GIVE RETRIEVED DATA TO ORIGINAL REQUESTOR.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-3-3.1.1	BASIC ANCILLARY DATA PROVIDED
RFP	C-4-2.1.3.3	INTERNAL/EXTERNAL CONTAMINATION MONITOR
CRSS	4.1.6	PROVIDE TIME TAGGED ANCILLARY DATA SETS
CRSS	4.1.5	PERMIT CUST TO USE OWN, IMPROVED PERFORMANCE DATA
CRSS	4.1.4	PROVIDE ATTITUDE, TBD DEG. ACCURACY
RFP	C-4-2.2.5.3.B	PROVIDE HOUSEKEEPING DATA TO CUST.
CRSS	2.2.3.1	PROVIDE PACKETIZED ANCILLARY DATA TO PAYLOADS
RFP	C-4-2.2.7.1.B	PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER
CRSS	4.1.2	PROVIDE TIME REFERENCE, 1 mSEC ACCURACY
RFP	C-4-2.2.7.1.C	PROVIDE STATE VECTOR AND TM TO SUPPORT CUSTOMER
RFP	C-4-2.2.7.1.T	PROVIDE NAV DATA TO PAYLOAD
CRSS	4.1.3	PROVIDE ORBIT POSITION, TBD M ACCURACY
CRSS	4.1.1.1	PROVIDE ANCILLARY DATA TO CUSTOMER EQUIPMENT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.4P NAME: PROVIDE ANCILLARY DATA

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	F	2.5.1P	D	15.000	0.700
O	N	E	PLAT P/L	C	0.100	0.070
I	N	D	CORESTAT	C	0.050	0.700

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.1P NAME: CUSTOMER DATA PROCESSING
 PREPARED BY: C.R. EASTON REVISED BY:
 REVISION: 0 REVISION DATE: 07/03/85
 FUNCTION TYPE: U PROGRAM PHASE:
 ENTERED DATE: 07/05/85

DESCRIPTION:

PROVIDES DATA PROCESSING SUPPORT FOR CUSTOMER PAYLOADS AS AN OPTION
 FOR THE CUSTOMERS. CUSTOMERS MUST SUPPLY THE SOFTWARE, AND THE SSDS
 PROVIDES THE ONBOARD PROCESSOR SUPPORT.

FUNCTION SOURCES: RFP C-2-3.1.3, CRSS 7.1.3,
 CRSS 3.3.5

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 4
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 RFP C-2-3.1.3 CUST. DATA MGMT. SERVICES
 CRSS 7.1.3 PAYLOAD HOUSEKEEPING DATA MONITOR
 CRSS 3.3.5 PROVIDE TBD CUST ONBOARD MASS STORAGE
 MRWG COMM1206(46) CUSTOMER DATA PROCESSING

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.1P NAME: CUSTOMER DATA PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	2.5.2P	D	15.000	5.000
O	Y	E	PLAT P/L	D	20.000	50.000
O	N	D	P/L STAT	D	15.000	1.000
I	N	D	CORESTAT	D	15.000	5.000
I	Y	E	PLAT P/L	D	20.000	500.000
I	N	F	2.4P	D	15.000	0.700
I	N	D	P/L STAT	D	15.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.2P NAME: CUSTOMER PAYLOAD OPERATION
 PREPARED BY: C.R. EASTON REVISED BY:
 REVISION: 0 REVISION DATE: 07/03/85
 FUNCTION TYPE: U PROGRAM PHASE:
 ENTERED DATE: 07/05/85

DESCRIPTION:

PROVIDES PAYLOAD OPERATION SUPPORT FOR CUSTOMER PAYLOADS AS AN
 OPTIONAL SERVICE. PROVIDES STORAGE FOR COMMAND SEQUENCES AND
 OPERATION COMMANDS ON SCHEDULE OR ON CONDITION.

FUNCTION SOURCES: RFP C-3-3.1.G CRSS 6.3.1.1
 CRSS 6.3.2

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 MRWG SAAX0305(32) CUSTOMER PROCESS CONTROL
 CRSS 7.1.3 PAYLOAD HOUSEKEEPING DATA MONITOR
 CRSS 6.3.2 STORED PAYLOAD COMMAND ACTIVATED BY ANOTHER STORED COMMAND
 RFP C-2-3.1.3 INDEPENDENT CUST. OPERATION & MONITOR OF PAYLOAD
 CRSS 7.2.6 SUPPORT RAPID REPLANNING FOR OPPORTUNITIES
 RFP C-3-3.1.G INDEPENDENT CUST OPERATION AND MONITOR
 RFP C-2-3.1.3 P/L-SUPPORTING COMMAND & ITS SUBSYSTEMS TRANSPARENT TO
 CUST
 MRWG COMM1117(37) PAYLOAD ACTIVATION/SAFING
 CRSS 6.3.1.1 ACTIVATE STORED COMMAND SEQUENCES

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 2.5.2P NAME: CUSTOMER PAYLOAD OPERATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	2.5.1P	D	15.000	5.000
I	N	D	P/L STAT	D	15.000	1.000
I	N	D	CUSTCMDS	D	15.000	0.200
O	Y	E	PLAT P/L	D	20.000	0.200
I	Y	F	3.4.1P	D	60.000	0.200
I	Y	F	2.2P	D	20.000	0.200
I	N	D	CORESTAT	D	15.000	5.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.1P NAME: DEVELOP NORMAL DAY PAYLOAD OPERATIONS
PREPARED BY: EASTON/BOWMAN REVISED BY:
REVISION: 0 REVISION DATE: 07/03/85
FUNCTION TYPE: U PROGRAM PHASE:
ENTERED DATE: 07/05/85

DESCRIPTION:

RECEIVES PLANNED PAYLOAD OPERATIONS DESCRIPTIONS AND LOADS INTO
RECURRING OPERATIONS FILE. PROVIDES USER FRIENDLY DATA ENTRY
SUPPORT.

FUNCTION SOURCES: RFP C-3-2.4.G CRSS 7.2.1
CRSS 8.4.2

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.1P NAME: DEVELOP NORMAL DAY PAYLOAD OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	CUSTOMER	D	40000.000	1.000
O	N	D	RECUOPS	D	40000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.2P NAME: DEVELOP NORMAL DAY CORE SYSTEM OPERATIONS
PREPARED BY: C.R. EASTON REVISION DATE: 07/03/85
REVISION: 0 PROGRAM PHASE:
FUNCTION TYPE: C ENTERED DATE: 07/05/85

DESCRIPTION:
RECEIVES PLANNED SPACE STATION CORE OPERATIONS DESCRIPTIONS AND LOADS
INTO RECURRING OPERATIONS FILE. USER FRIENDLY DATA ENTRY SUPPORT.

FUNCTION SOURCES: RFP C-3-2.4.G

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.2P NAME: DEVELOP NORMAL DAY CORE SYSTEM OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	Y	E	OPERATOR	D	100000.000	1.000
O	N	D	RECUOPS	D	100000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.3P NAME: DEVELOP MODE COMPATIBILITY MATRIX
PREPARED BY: .R. EASTON REVISED BY:
REVISION: 0 REVISION DATE: 07/03/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/05/85

DESCRIPTION:

INTERACTS WITH CUSTOMERS AND OPERATORS TO SPECIFY EACH SUBSYSTEM/
PAYLOAD'S OPERATING MODES IN TERMS OF RESOURCES REQ'D, SENSITIVITIES
OR EFFECTS TO OTHER OPERATIONS, AND SAFETY EFFECTS/RESTRICTIONS.
THESE DATA ARE COMPILED INTO THE MODE COMPATIBILITY MATRIX.

FUNCTION SOURCES: CRSS 7.2.1

CRITICALITY - RECOVERY TIME: 4 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.3P NAME: DEVELOP MODE COMPATIBILITY MATRIX

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	CUSTOMER	D	10000.000	0.100
O	Y	E	OPERATOR	D	10000.000	0.100
I	Y	E	OPERATOR	D	10000.000	0.100
I	Y	E	CUSTOMER	D	10000.000	0.100
I	N	D	CMD DICT	D	100000.000	2.500
I	N	D	RECUROPS	D	100000.000	1.000
O	N	D	RECUROPS	D	100000.000	0.100
O	N	D	COMPMTRX	D	10000.000	1.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.4P NAME: DEVELOP MAJOR EVENT OPERATIONS

PREPARED BY: C.R. EASTON

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/05/85

DESCRIPTION:

DEVELOP OPERATIONS PROFILES FOR MAJOR EVENTS SUCH AS NSTS VISITS,
PAYLOAD AND CORE SYSTEM CHANGES, ETC. LOAD INTO RECURRING OPERATIONS
FILE.

FUNCTION SOURCES: RFP C-3-2.4.G

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS.- REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.1.4P NAME: DEVELOP MAJOR EVENT OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	E	NSTSCTL	D	100000.000	50.000
O	Y	D	MSTRPLAN	D	200000.000	2.000
I	N	E	CUSTOMER	D	86400.000	5.000
O	N	D	RECUOPS	D	86400.000	5.000
I	N	D	MSTRPLAN	D	200000.000	1.000
I	Y	E	OPERATOR	D	86400.000	5.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.1P NAME: CONFIRM PAYLOAD AND CORE SCHEDULES
 PREPARED BY: REVISED BY:
 REVISION: 0 REVISION DATE: 07/03/85
 FUNCTION TYPE: C PROGRAM PHASE:
 ENTERED DATE: 07/05/85

DESCRIPTION:

VERIFIES OPERATIONS TO BE PERFORMED, ACCEPTS CHANGES, UPDATES, NEW
 OPERATIONS. PREPATES BASELINE SCHEDULE. COORDINATES DATA LINKS
 AVAILABILITY.

FUNCTION SOURCES: CRSS 0.3 CRSS 7.2.2
 CRSS 5.2.9 CRSS 7.2.1

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 CRSS 6.2.1.4 PROVIDE TRANSP CUST ACCESS TO STORED CMMD SEQUENCES
 CRSS 7.2.2 SUPPORT REQUESTS FOR SSP RESOURCES
 CRSS 0.3 COORDINATE UPLINK/DOWNLINK WITH NCC VIA SSCC

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.1P NAME: CONFIRM PAYLOAD AND CORE SCHEDULES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	MAJEVENT	D	86400.000	10.000
O	Y	F	3.2.3P	D	86400.000	50.000
I	N	D	NORMOPS	D	86400.000	50.000
O	Y	F	3.2.2P	D	1000000.000	1.000
O	N	E	CUSTOMER	D	86400.000	40.000
I	N	D	P/L STAT	D	86400.000	40.000
I	Y	D	MSTRPLAN	D	86400.000	1.000
I	Y	E	NCC	D	86400.000	1.200
O	N	D	TASKSTAT	D	86400.000	2.000
I	Y	E	CUSTOMER	D	86400.000	1.000
I	Y	E	OPERATOR	D	86400.000	1.000
O	Y	E	NCC	D	86400.000	0.900
O	N	E	OPERATOR	D	86400.000	20.000
I	N	D	TASKSTAT	D	86400.000	3.000
I	N	D	RECUROPS	D	86400.000	40.000

SSDS FUNCTIONAL DATA SHEET

DESCRIPTION:
ACCEPTS NEW AND REVISED PAYLOAD AND CORE OPERATIONS FROM CUSTOMERS
AND OPERATORS. MAINTAINS RECURRING OPERATIONS FILE CONTAINING
PROFILES OF REPETATIVE OPERATIONS.

DOC	PARAGRAPH NO.	DESCRIPTION
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
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10	10	10
11	11	11
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99	99	99
100	100	100

SSDS FUNCTIONAL DATA SHEET

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	GND OPR	D	1000000.000	1.000
O	N	D	RECUROPS	D	100000.000	1.000
I	Y	E	CUSTOMER	D	100000.000	1.000
I	Y	F	3.2.1P	D	1000000.000	1.000

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.3P NAME: CHECK FOR CONFLICTS
PREPARED BY: REVISED BY:
REVISION: 0 REVISION DATE: 07/03/85
FUNCTION TYPE: C PROGRAM PHASE:
 ENTERED DATE: 07/05/85

DESCRIPTION:
CHECKS BASELINE SCHEDULE FOR CONFLICTS AMONG PAYLOAD AND CORE
OPERATIONS. USES SENSITIVITIES, INTERFERENCES, AND CONDITIONS FOR
EXECUTION FROM COMMAND DICTIONARY TO DETERMINE CONFLICTS.

FUNCTION SOURCES: CRSS 6.1.6.2 CRSS 7.2.1
CRSS 7.2.6

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
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ADDITIONAL REQUIREMENTS: (none)

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.3P NAME: CHECK FOR CONFLICTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	3.2.1P	D	86400.000	50.000
I	N	D	COMPMTRX	D	86400.000	50.000
I	N	D	RECUROPS	D	86400.000	40.000
O	Y	F	3.2.4P	D	21600.000	50.000
I	Y	F	3.2.5P	D	21600.000	50.000

SSDS FUNCTIONAL DATA SHEET

DESCRIPTION:
RECEIVES TRIAL SCHEDULE, CHECKS RESOURCE DEMAND AGAINST RESOURCES
AVAILABLE. DETERMINE EXCESS INSTANTANEOUS AND SHORT TERM AVERAGE
DEMAND CONDITIONS.

DOC	PARAGRAPH NO.	DESCRIPTION
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
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100	100	100

ADDITIONAL REQUIREMENTS: (none)

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.4P NAME: CHECK FOR FACILITIES CAPABILITIES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	FAC STAT	D	21600.000	1.000
I	N	D	RECUROPS	D	86400.000	40.000
O	Y	F	3.2.5P	D	21600.000	50.000
I	Y	F	3.2.3P	D	21600.000	50.000
I	N	D	CORESTAT	D	86400.000	20.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.5P NAME: RESOLVE CONFLICTS

PREPARED BY:

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/05/85

DESCRIPTION:

PROVIDES INTERACTIVE RESOLUTION WITH CUSTOMERS AND OPERATOR FOR PAYLOAD AND CORE OPERATIONS WHICH EXCEED RESOURCE LIMITS OR INTERFERE WITH OTHER OPERATIONS. SUPPORTS RAPID REPLANNING FOR OPPORTUNITIES.

FUNCTION SOURCES: CRSS 7.2.1
CRSS 7.2.6

CRSS 7.2.2.1

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED:
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.5P NAME: RESOLVE CONFLICTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	3.2.6P	D	86400.000	50.000
O	N	D	CMMD LOG	D	86400.000	40.000
I	N	D	CORESTAT	D	86400.000	20.000
O	Y	F	3.3.2P	D	1000.000	1.000
I	N	D	SHORTSCH	D	1000.000	1.000
I	Y	E	CUSTOMER	D	21600.000	1.000
I	Y	E	GND OPR	D	21600.000	1.000
I	Y	F	3.3.2P	D	1000.000	1.000
O	Y	F	3.2.3P	D	21600.000	50.000
I	Y	F	3.2.4P	D	21600.000	50.000
O	N	E	CUSTOMER	D	21600.000	1.000
I	N	D	PRIORITY	D	86400.000	1.000
O	N	E	GND OPR	D	21600.000	1.000

SSDS FUNCTIONAL DATA SHEET

DESCRIPTION:
ENTERS APPROVED OPERATIONS IN SHORT TERM SCHEDULE. MAINTAINS
FORECASTS OF RESOURCE UTILIZATION, CORE SYSTEM AND PAYLOAD MODES, AND
RESOURCE AVAILABILITY. MAINTAINS TASK AND COMMAND STATUS.

CRSS 6.1.6.2	CHECK RESTRICTED/CONSTRAINED COMMANDS FOR EXECUTION
CRSS 6.2.1.2	INCLUDE RESTRICTED/CONSTRAINED COMMANDS IN REAL TIME OPS
CRSS 6.2.1	ALLOW CUSTOMER TO OPERATE P/L REAL TIME

ADDITIONAL REQUIREMENTS: (none)

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.2.6P NAME: MAINTAIN SHORT TERM SCHEDULES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	TASKSTAT	D	10.000	0.100
O	N	D	CMMD LOG	D	10.000	0.100
O	N	D	NORMOPS	D	86400.000	1.000
I	Y	F	3.2.5P	D	86400.000	50.000
O	N	D	SHORTSCH	D	10.000	1.000
O	N	D	MAJEVENT	D	860000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.1P NAME: TIME TAG OPERATIONS

PREPARED BY: EASTON/BOWMAN

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/05/85

DESCRIPTION:

SELECTS OPERATIONS FROM SHORT TERM SCHEDULE AND 3.3.2. ENTERS
APPROPRIATE CODE AND TIME FOR DELIVERY INTO 3.3.3.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 3

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.1P NAME: TIME TAG OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	SHORTSCH	D	100.000	1.000
O	Y	F	3.3.3P	D	100.000	1.000
I	Y	F	3.3.2P	D	100.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.2P NAME: CHECK SCHEDULE CONFLICTS

PREPARED BY: C.R. EASTON

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/05/85

DESCRIPTION:

CHECKS MODE COMPATIBILITY MATRIX TO SCHEDULE MUTUALLY COMPATIBLE
OPERATING MODES TO SATISFY REQUESTS FOR FUTURE OPERATION.

FUNCTION SOURCES: CRSS 6.1.3.1
CRSS 6.2.1.2

CRSS 6.1.6.2
CRSS 6.2.1.3

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

CRSS 6.1.3.1	RESTRICTED/CONSTRAINED COMMAND INHIBITION, TRANSMISSION
CRSS 6.1.6.2	CHECK RESTRICTED/CONSTRAINED COMMANDS FOR EXECUTION
CRSS 6.2.1	ALLOW CUSTOMER TO OPERATE P/L REAL TIME
CRSS 6.2.1.2	INCLUDE RESTRICTED/CONSTRAINED COMMANDS IN REAL TIME OPS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.2P NAME: CHECK SCHEDULE CONFLICTS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	CMD DICT	D	1.000	0.200
O	Y	F	3.2.5P	D	1000.000	1.000
O	N	D	CMMD LOG	D	10.000	0.100
I	Y	F	2.3.2P	D	10000.000	1.000
I	N	D	COMPMTRX	D	10.000	0.500
I	Y	F	3.2.5P	D	1000.000	1.000
I	N	D	CORESTAT	D	10.000	0.100
I	Y	D	CUSTCMDS	D	1000.000	1.000
I	Y	D	SHORTSCH	D	1.000	5.000
I	N	D	P/L STAT	D	1.000	0.050
I	Y	F	2.2P	D	10.000	1.000
I	Y	D	MODESTAT	D	1000.000	1.000
O	Y	F	3.3.1P	D	100.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.3P NAME: MAINTAIN OPERATING EVENTS SCHEDULE
PREPARED BY: C.R. EASTON REVISED BY:
REVISION: 0 REVISION DATE: 07/03/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/05/85

DESCRIPTION:

PREPARES ENTRIES FOR OPERATING EVENTS SCHEDULE. UPDATES SCHEDULE AS
REQUIRED. MAINTAINS TASK STATUS LOG AND COMMAND LOG.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.3P NAME: MAINTAIN OPERATING EVENTS SCHEDULE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	OPEVENTS	D	100.000	2.000
I	Y	F	3.3.1P	D	100.000	1.000
O	N	D	CMMD LOG	D	1.000	0.100
I	Y	F	3.3.4P	D	10000.000	1.000
O	N	D	TASKSTAT	D	5.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.4P NAME: ADJUST FOR UNSCHEDULED MODE CHANGES
 PREPARED BY: C.R. EASTON REVISED BY:
 REVISION: 0 REVISION DATE: 07/03/85
 FUNCTION TYPE: C PROGRAM PHASE:
 ENTERED DATE: 07/05/85

DESCRIPTION:

RECEIVES NOTIFICATION OF MODE CHANGES. DETERMINES WHETHER MODE CHANGES ARE SCHEDULED. CHECKS WHETHER OPERATIONS ARE EXECUTABLE IN NEW MODE. NOTIFIES CUSTOMER, OPERATOR, AND FUNCTION 3.3.3 OF MODE CHANGE AND IMPACT.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.3.4P NAME: ADJUST FOR UNSCHEDULED MODE CHANGES

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	Y	D	MODESTAT	D	600.000	1.000
I	N	D	OPEVENTS	D	10000.000	100.000
I	N	D	SHORTSCH	D	600.000	0.500
I	N	F	3.4.3P	D	600.000	0.100
O	N	E	CUSTOMER	D	100000.000	0.100
O	N	E	OPERATOR	D	100000.000	0.100
O	Y	F	5.2.5	D	100000.000	0.100
I	Y	D	P/L STAT	D	600.000	0.100
O	Y	F	3.3.3P	D	10000.000	1.000
I	N	D	CMD DICT	D	10000.000	1000.000
I	N	D	COMPMTRX	D	600.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.1P NAME: SEQUENCE PAYLOAD OPERATIONS
 PREPARED BY: C. R. Easton REVISED BY: BOWMAN/EASTON
 REVISION: 1 REVISION DATE: 07/03/85
 FUNCTION TYPE: U PROGRAM PHASE:
 ENTERED DATE: 07/05/85

DESCRIPTION:

Selects payload operations to be executed from operations events schedule. Dispatches operating commands to payloads, communications, interfaces, or operations support. Logs commands executed.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 CRSS 6.3.1.1 ACTIVATE STORED COMMAND SEQUENCES
 CRSS 6.3.2 STORED PAYLOAD COMMAND ACTIVATED BY ANOTHER STORED COMMAND

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.1P NAME: SEQUENCE PAYLOAD OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	PLAT P/L	D	60.000	0.200
I	Y	F	3.4.4P	D	60.000	0.200
I	Y	D	NAVSTATE	C	1.000	0.050
O	N	D	CMMD LOG	D	60.000	0.050
O	N	D	TASKSTAT	D	60.000	0.050
O	Y	F	2.5.2P	D	60.000	0.200

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.2P NAME: SEQUENCE CORE SYSTEM OPERATIONS
PREPARED BY: C. R. Easton REVISED BY: BOWMAN/EASTON
REVISION: 1 REVISION DATE: 07/03/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/05/85

DESCRIPTION:

Selects Core system operations to be executed from operations events schedule. Dispatches operating commands to core systems. Logs commands executed.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 2

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 2
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.2P NAME: SEQUENCE CORE SYSTEM OPERATIONS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	CMMD LOG	D	60.000	0.100
I	Y	D	NAVSTATE	C	1.000	0.050
O	N	D	TASKSTAT	D	60.000	0.050
O	Y	F	4.0P	D	10.000	0.100
O	Y	F	3.4.3P	D	600.000	0.100
I	Y	F	3.4.4P	D	10.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.3P NAME: COMMAND SCHEDULED MODE CHANGE

PREPARED BY: C. R. Easton

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/05/85

DESCRIPTION:

Coordinates and implements scheduled mode change commands. Advises customers and operators of mode change and potential consequences such as not executable operations.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 3

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 2

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.3P NAME: COMMAND SCHEDULED MODE CHANGE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	3.4.2P	D	600.000	0.100
O	N	F	3.3.4P	D	600.000	0.100
O	N	D	MODESTAT	D	600.000	0.100
O	N	E	OPERATOR	D	600.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.4P NAME: CHECK FOR EXECUTABILITY
PREPARED BY: BOWMAN/EASTON REVISION: 0
REVISION: 0 REVISION DATE: 07/03/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/08/85

DESCRIPTION:
CHECKS COMMANDS IMMEDIATELY PRIOR TO EXECUTION TO VERIFY THE
PENDING OPERATION'S COMPATIBILITY WITH CURRENT SYSTEM MODES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 2

DATA PRIVACY CODE:

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 1
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 3.4.4P NAME: CHECK FOR EXECUTABILITY

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	3.4.2P	D	10.000	0.100
O	Y	F	3.4.1P	D	60.000	0.200
I	N	D	CORESTAT	D	10.000	1.000
I	N	D	P/L STAT	D	10.000	0.500
I	Y	D	OPEVENTS	D	10.000	0.100
I	N	D	PRIORITY	D	10.000	0.050
I	N	D	COMPMTRX	D	10.000	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.1P NAME: SPACE CRAFT STATE/ORBIT DETERMINATION
PREPARED BY: J. N. DASHIELL
REVISION: 0
FUNCTION TYPE: C

REVISED BY:
REVISION DATE: 07/10/85
PROGRAM PHASE:
ENTERED DATE: 07/11/85

DESCRIPTION:
INCORPORATE GPS MEASUREMENTS IN RECURSIVE FILTER; INCORPORATE TDRSS
TRACKING MEASUREMENTS; INCORPORATE COMMAND UPDATE STATE.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.7.1.A ESTABLISH AND MAINTAIN SSPE STATE VECTOR
RFP C-4-2.2.7.1.A ACCEPT SECOND SOURCE STATE VECTOR UPDATE
CRSS 4.1.3 PROVIDE ORBIT POSITION, TBD M ACCURACY
MRWG SAAX0201(74) DETERMINE SPACE STATION STATE/ORBIT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.1P NAME: SPACE CRAFT STATE/ORBIT DETERMINATION

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
O	N	F	4.1.1.4P	C	2.000	0.050
O	N	D	NAVSTATE	C	2.000	0.050
I	N	E	TDRSS	C	2.000	2.000
I	N	E	GPS TRAK	C	2.000	0.150

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.3P NAME: DETERMINE EPHEMERIDES (SUN, MOON, ETC.)
PREPARED BY: J. N. DASHIELL
REVISION: 0
FUNCTION TYPE: C
REVISED BY:
REVISION DATE: 07/10/85
PROGRAM PHASE:
ENTERED DATE: 07/11/85

DESCRIPTION:

DETERMINE EPHEMERIDES TIME, COMPUTE RIGHT ASCENSION & DECLINATION OF
SUN, MOON, PLANETS AS FUNCTION OF EPHEMERIS TIME; MAINTAIN
CELESTIAL OBJECT TABLE AND ADJUST FOR PROPER MOTION; MAINTAIN
GEOSYNCHRONOUS OBJECT STATE; STORE IN EPHEMERIDES TABLES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

MRWG SAAX006(13) DETERMINE EPHEMERIDES

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.3P NAME: DETERMINE EPHEMERIDES (SUN, MOON, ETC.)

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	NAVSTATE	C	600.000	0.100
O	N	D	EPHEMER	C	600.000	0.060
O	N	F	4.1.2.6P	C	600.000	0.050
I	Y	D	STARCATL	D	6000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.4P NAME: ATTITUDE DETERMINATION

PREPARED BY: J. N. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

INTEGRATE RATE FOR STRAPDOWN INERTIAL REFERENCE, CONTROL STAR SELECTION, INCORPORATE STAR TRACKER MEASUREMENTS, SELECTION FILTER & EDIT MEASUREMENTS, ESTIMATE GYRO DRIFT, RECURSIVELY FILTER STRAPDOWN & STAR REFERENCE (KALMAN FILTER), PERFORM COORDINATE TRANSFORMS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

MRWG TDMX2410(22) DETERMINE SPACE STATION ATTITUDE
CRSS 4.1.4 PROVIDE ATTITUDE, TBD DEG. ACCURACY

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.4P NAME: ATTITUDE DETERMINATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	F	4.1.1.1P	C	2.000	0.050
O	Y	E	STARTRAK	D	600.000	0.050
I	N	E	RATEGYRO	C	0.100	0.100
I	N	D	EPHEMER	C	600.000	0.400
O	N	D	GNC STAT	C	60.000	0.200
O	N	D	NAVSTATE	C	0.100	0.150
I	N	E	STARTRAK	C	2.000	0.200

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.5P NAME: NAVIGATION STATE PROPAGATION

PREPARED BY: J. N. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

MODEL DRAG, MODEL GRAVITY, MODEL VENTING DISTURBANCE, INCORPORATE
RCS THRUST, INTEGRATE STATE EQUATIONS TO DESIRED TIME, STORE
STATE FORECAST.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

MRWG TDMX2260(46)	PROPOGATE SPACE STATION STATE
MRWG COMM1105(37)	PROPAGATE CONSTELLATION STATE
RFP C-4-2.2.7.1.B	PROVIDE NAV & CTRL INFO TO SUPPORT CUSTOMER
RFP C-4-2.2.7.1.C	PROVIDE STATE VECTOR AND TM TO SUPPORT CUSTOMER

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.5P NAME: NAVIGATION STATE PROPAGATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	MASSPROP	D	860000.000	0.020
O	N	D	NVSTFCST	C	60.000	1.000
I	N	D	NAVSTATE	C	2.000	0.080
I	N	D	ENVIRON	C	5.000	0.080
O	N	D	NAVSTATE	C	10.000	2.000
I	Y	F	4.1.2.1P	D	3000000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.6P NAME: DEVICE MANAGEMENT

PREPARED BY: J. N. DASHIELL

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

GPS REDUNDANCY MANAGEMENT (RM IS FAULT DETECTION, ISOLATION AND RECOVERY); STAR TRACKER RM; RATE GYRO RM

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.6P NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.7P NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: J. N. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

DISPLAY NAVIGATION STATUS; ACCEPT RECONFIGURATION COMMANDS; PROCESS
TELEMETRY OR CREW COMMANDS; INITIATE SEQUENCING AND MODING; DISPLAY
ATTITUDE STATUS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.1.7P NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.1P NAME: REBOOST/REENTRY TARGETING

PREPARED BY: J. N. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

COMPUTE VELOCITY INCREMENT & TIME OF IGNITION FOR DESIRED STATE;
ITERATE WITH STATE PROPAGATION; INITIATE TARGETING COMPUTATION
REQUEST GUIDANCE TO PERFORM MANEUVER; ACCEPT GROUND COMMANDS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.1.4.2 DISPOSAL OF SSPE'S

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.1P NAME: REBOOST/REENTRY TARGETING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	3.4.2P	D	3000000.000	0.700
I	Y	E	GND OPR	D	3000000.000	0.100
O	Y	F	4.1.2.2P	D	3000000.000	0.100
O	Y	F	4.1.1.5P	D	3000000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.2P NAME: MANEUVER COORDINATION

PREPARED BY: J. N. DASHIELL

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

REQUEST MANEUVER TO THRUSTING ATTITUDE, WAIT FOR MANEUVER COMPLETE,
REQUEST THRUSTING MANEUVER.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.7.1.D PROVIDE NAV & GUIDANCE FOR SSPE TRAFFIC CTRL
MRWG COMM1201(75) COORDINATE REBOOST

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.2P NAME: MANEUVER COORDINATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	MODESTAT	D	3000000.000	0.050
O	Y	F	4.1.2.4P	D	3000000.000	0.200
I	Y	F	4.1.2.1P	D	3000000.000	0.100
O	Y	D	MODESTAT	D	3000000.000	0.050

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.4P NAME: REBOOST MANEUVER

PREPARED BY: J. N. DASHIELL

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

COMPUTE POWERED ITERATIVE GUIDANCE COMMANDS, REQUEST RCS JET SELECTION FOR GUIDANCE DELTA VELOCITY COMMANDS, MONITOR PROJECTED STATE HISTORY.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.7.1.Q PROVIDE RCS INHIBITS

RFP C-4-2.2.8 ATTITUDE CTRL & VELOCITY ADJUSTMENT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.4P NAME: REBOOST MANEUVER

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	NAVSTATE	C	10.000	0.100
I	Y	F	4.1.2.2P	D	3000000.000	0.200
O	Y	F	4.1.3.3P	C	1.000	0.100
O	Y	F	4.1.3.1P	C	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.6P NAME: DETERMINE POINTING MOUNT CONTROLS
PREPARED BY: J. N. DASHIELL REVISION: 0
REVISION: 0 REVISION DATE: 07/10/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/11/85

DESCRIPTION:
POINT SOLAR ARRAYS, POINT RADIATOR PANELS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-2-3.1.2	ARTICULATING MOUNTS FOR EXTERNAL PAYLOAD
RFP	C-4-2.2.7.1.L	PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES
RFP	C-4-2.2.7.2b	CONTROL POINTING MOUNTS TO 0.1 DEG
RFP	C-4-2.1.2.1	ARTICULATING MOUNTS FOR EXTERNAL PAYLOADS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.6P NAME: DETERMINE POINTING MOUNT CONTROLS

TYPE	TRIGGER	SOURCE/DESTINATION TYPE CODE	INPUT/OUTPUT CODE RATE(SEC)	DATA AMOUNT (KBYTES)
O	Y	F 4.2.5.6P	C 600.000	0.100
I	N	D NAVSTATE	C 1.000	0.080
I	Y	F 4.2.1.3P	C 60.000	0.100
I	N	F 4.1.1.3P	C 600.000	0.050
O	Y	F 4.1.3.4P	C 1.000	0.200
I	Y	F 4.4.1.4P	C 2.000	0.100
O	Y	F 4.2.1.3P	C 60.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.7P NAME: DEVICE MANAGEMENT

PREPARED BY: J. N. DASHIELL

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

SOLAR PANEL DRIVE RM, RADIATOR PANEL DRIVE RM.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.7P NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
-----					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.8P NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: J. N. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

DISPLAY STATUS OF GUIDANCE, ACCEPT RECONFIGURATION COMMANDS, PROCESS
TELEMETRY OR CREW COMMANDS, INITIATE MODING AND SEQUENCE CONTROL.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.2.8P NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.1P NAME: CONTROL ATTITUDE AND TRANSLATION

PREPARED BY: COLLYER/HI

REVISED BY: BOWMAN

REVISION: 1

REVISION DATE: 07/09/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/10/85

DESCRIPTION:

STATION ATTITUDE CONTROL, INCLUDING REBOOST TRANSLATIONAL CONTROL.

FUNCTION SOURCES: REF CONFIG

CRITICALITY - RECOVERY TIME: 1

IMPACT: 2

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 7

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP	C-4-2.2.7.1.H	ESTABLISH & MAINTAIN SSPE RELATIVE ATTITUDE
RFP	C-4-2.2.7.1.L	PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES
RFP	C-4-2.2.7.2b	CONTROL STATION ATTITUDE TO +/- DEG
RFP	C-4-2.2.7.2b	LIMIT ANGULAR RATE TO 0.02 DEG/SEC

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.1P NAME: CONTROL ATTITUDE AND TRANSLATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	MASSPROP	C	10.000	0.400
I	Y	E	MODESENS	C	10.000	0.400
O	Y	F	4.1.3.2P	C	0.200	0.400
I	Y	E	MAGMETER	C	10.000	0.400
I	Y	D	GNC STAT	C	20.000	0.100
I	Y	F	4.1.2.4P	C	1.000	0.100
I	N	E	RATEGYRO	C	0.200	0.200
I	N	D	NAVSTATE	C	0.800	0.300
I	Y	F	3.4.2P	D	100000.000	0.200
I	N	F	4.1.3.3P	C	20.000	0.400

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.2P NAME: GENERATE ATTITUDE COMMANDS

PREPARED BY: COLLYER/HI

REVISED BY: BOWMAN

REVISION: 1

REVISION DATE: 07/09/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/10/85

DESCRIPTION:

CONTROL AND MANAGEMENT OF ATTITUDE CONTROL DEVICES BASED ON COMMAND MOMENTS/FORCES DURING ORBIT OPERATION AND REBOOST.

FUNCTION SOURCES: SSDS LVL DFD 4.1

CRITICALITY - RECOVERY TIME: 1

IMPACT: 2

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 6

DOC PARAGRAPH NO. DESCRIPTION

MRWG TDMX2120(12) COORDINATE ATTITUDE MANEUVER

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.2P NAME: GENERATE ATTITUDE COMMANDS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	CMG	C	0.200	0.300
O	N	E	RCS	C	0.200	0.300
I	Y	E	MAGTORQ	C	0.200	0.200
I	Y	F	4.1.3.1P	C	0.200	0.400
I	Y	E	CMG	C	0.200	0.300
I	Y	E	RCS	C	0.200	0.300
O	N	E	MAGTORQ	C	0.200	0.200
O	N	D	GNC STAT	C	5.000	0.200

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.3P NAME: MOMENTUM MANAGEMENT

PREPARED BY: YEICHNER/HI

REVISED BY: BOWMAN

REVISION: 1

REVISION DATE: 07/09/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/10/85

DESCRIPTION:

4.1.3.3 MOMENTUM MANAGEMENT, MANAGEMENT OF MOMENTUM EXCHANGE SYSTEM
AND DEVICES (CMGs)

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.7.1.P PROVIDE ACTIVE MOMENTUM MGMT
RFP C-4-2.2.8 ATTITUDE CTRL & VELOCITY ADJUSTMENT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.3P NAME: MOMENTUM MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.1.2.4P	C	1.000	0.100
I	N	D	NAVSTATE	C	0.800	0.300
I	N	D	MASSPROP	C	10.000	0.400
O	N	F	4.1.3.1P	C	20.000	0.400
I	Y	D	ENVIRON	C	20.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.4P NAME: POINTING MOUNT CONTROL
PREPARED BY: BURTON/HI REVISION: 1
FUNCTION TYPE: C REVISION DATE: 07/09/85
PROGRAM PHASE:
ENTERED DATE: 07/10/85

DESCRIPTION:
PROCESS ACS (4.1.3.1) SENSOR DATA AND F/B TO PRODUCE TORQUING
COMMANDS TO THE SOLAR ARRAY AND RADIATOR GIMBALS.

FUNCTION SOURCES: REF CONFIG DOC

CRITICALITY - RECOVERY TIME: 1 IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.4P NAME: POINTING MOUNT CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	CORESTAT	C	0.500	0.500
I	N	E	PNTG MNT	C	0.500	0.400
O	Y	E	PNTG MNT	D	0.500	0.700
I	Y	F	4.1.2.6P	C	1.000	0.200

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.5P NAME: DEVICE MANAGEMENT

PREPARED BY: T. J. SMITH

REVISION: 1

FUNCTION TYPE: C

REVISED BY: BOWMAN

REVISION DATE: 07/09/85

PROGRAM PHASE:

ENTERED DATE: 07/10/85

DESCRIPTION:

RCS REDUNDANCY MANAGEMENT, CMG REDUNDANCY MANAGEMENT, MODE SENSORS
RM, MAGNETIC TORQUER RM

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 1

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.5P NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
-----					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.6P NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: T. J. SMITH

REVISED BY: BOWMAN

REVISION: 1

REVISION DATE: 07/09/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/10/85

DESCRIPTION:

DISPLAY ATTITUDE CONTROL STATUS, ACCEPT RECONFIGURATION COMMANDS,
PROCESS TELEMETRY OR CREW COMMANDS, INITIATE SEQUENCING AND MODING
FOR ATTITUDE REFERENCE CHANGES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.3.6P NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.1P NAME: TIME SOURCE MANAGEMENT
PREPARED BY: KILLINGBECK
REVISION: 0
FUNCTION TYPE: C
REVISED BY:
REVISION DATE: 07/10/85
PROGRAM PHASE:
ENTERED DATE: 07/11/85

DESCRIPTION:
SELECT TIME SOURCE DEVICE (GPS, MASTER TIMING UNIT, ETC.) TO BE
REFERENCE. ACCEPT MANUAL SOURCE SELECTION COMMAND. DISTRIBUTE
REFERENCE TIME VALUE THROUGHOUT ONBOARD NETWORK WITH ONE MSEC
MAXIMUM ERROR.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 1 IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.1P NAME: TIME SOURCE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	N	E	GPS TRAK	C	1.000	0.100
O	N	E	TIMEFREQ	C	1.000	0.100
I	Y	F	4.1.6.5P	D	2000000.000	0.100
O	N	D	NAVSTATE	C	1.000	0.100
O	N	D	CORESTAT	C	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.2P NAME: TIME UPDATE

PREPARED BY: KILLINGBECK

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

UPDATE ONBOARD TIME REFERENCE SOURCE AS COMMANDED BY GROUND OPERATORS. INCLUDES INITIALIZATION OF ONBOARD SOURCE. GPS (IF AVAIL.) IS PRIMARY REFERENCE SOURCE, WITH ANY STANDARD DATA PROCESSOR (SDP) CLOCK AS BACKUP SOURCES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

MRWG COMM1014(30) UPDATE TIME

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.2P NAME: TIME UPDATE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.1.6.5P	D	2000000.000	0.100
O	Y	E	TIMEFREQ	D	2000000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.3P NAME: FREQUENCY SOURCE MANAGEMENT

PREPARED BY: KILLINGBECK

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

SELECT FREQUENCY SOURCE TO BE DISTRIBUTED VIA DIRECT WIRE TO SUB-SYSTEMS NEEDING A VERY STABLE, PRECISE SOURCE. NEW SOURCE MAY BE SELECTED MANUALLY OR AUTOMATICALLY AT LOSS OF CURRENT SOURCE.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 1

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.3P NAME: FREQUENCY SOURCE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	TIMEFREQ	C	1.000	0.100
I	Y	F	4.1.6.5P	D	2000000.000	0.100
O	N	D	CORESTAT	C	1.000	0.100
I	N	E	GPS TRAK	C	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.4P NAME: DEVICE MANAGEMENT

PREPARED BY: KILLINGBECK

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

CONTROL AND MONITOR THE ONBOARD TIME AND FREQUENCY REFERENCE
SOURCE (TURN ON, TURN OFF, RESET, READ STATUS, ETC.)

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.4P NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	N	E	TIMEFREQ	C	1.000	0.100
I	Y	F	4.1.6.5P	D	2000000.000	0.100
O	Y	E	TIMEFREQ	D	2000000.000	0.100
O	N	D	CORESTAT	C	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.5P NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: KILLINGBECK

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

ACCEPT CREW OR GROUND COMMANDS FOR CONFIGURATION MANAGEMENT OF THE TIME MANAGEMENT FUNCTION. ROUTE THE COMMAND TO THE SUB-FUNCTION (UPDATE TIME, SELECT FREQ/TIME SOURCE, POWER ON/OFF, ETC.)

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.1.6.5P NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.1.6.3P	D	2000000.000	0.100
I	Y	F	2.3.2P	D	1000000.000	0.100
O	Y	F	4.1.6.4P	D	2000000.000	0.100
I	Y	F	3.4.2P	D	1000000.000	0.100
O	Y	F	4.1.6.1P	D	2000000.000	0.100
O	Y	F	4.1.6.2P	D	2000000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.1P NAME: EVALUATE ARRAY PERFORMANCE

PREPARED BY: R.C. WEAVER

REVISED BY: RALEY/BOWMAN

REVISION: 1

REVISION DATE: 07/05/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/09/85

DESCRIPTION:

MONITOR ARRAY CURRENTS AND VOLTAGES. COMPUTE PERFORMANCE AND COMPARE WITH PREDICTED VALUES TO ASSESS DEGREE OF DEGRADATION OF SOLAR ARRY OUTPUT.

FUNCTION SOURCES: RFP C-4-2.2.3.D

CRITICALITY - RECOVERY TIME: 4

IMPACT: 6

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.3.D AUTO POWER SYSTEM LOAD CTRL

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.1P NAME: EVALUATE ARRAY PERFORMANCE

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
O	Y	F	4.2.1.5P	D	60.000	1.000
O	N	D	PWR STAT	C	60.000	1.000
I	N	E	CHRG/REG	C	60.000	6.000
I	Y	F	4.2.1.5P	D	60.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.2P NAME: CONFIGURE POWER DISTRIBUTION

PREPARED BY: R.C. WEAVER

REVISED BY: RALEY/BOWMAN

REVISION: 1

REVISION DATE: 07/09/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/09/85

DESCRIPTION:

MONITOR LOAD STATUS. AUTOMATIC LOAD AND DISTRIBUTION SWITCH
 POSITION CONTROL TO MATCH LOAD DEMAND TO SOURCE CAPABILITY.
 GENERATE ALERTS. SHED EXCESSIVE LOADS.

FUNCTION SOURCES: RFP C-4-2.2.3.D
 RFP-C-4-2.2.3.F

RFP C-4-3.6.B

CRITICALITY - RECOVERY TIME: 1

IMPACT: 4

DATA PRIVACY CODE: N

ALARMS/ANNUNCIATIONS - REQUIRED: Y
 REQUIREMENTS:

NUMBER: 5

DOC PARAGRAPH NO. DESCRIPTION

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-2.2.3.D	AUTO POWER SYSTEM LOAD CTRL
RFP	C-4-2.2.3.F	RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES
RFP	C-4-3.6.B	PAYLOAD FACILITIES MGMT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.2P NAME: CONFIGURE POWER DISTRIBUTION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	3.4.2P	D	10000.000	1.000
I	Y	E	SWITCHGR	C	1.000	1.000
I	Y	F	5.1.2.6P	D	100000.000	1.000
I	N	E	OPERATOR	D	60.000	0.050
I	N	D	PWR STAT	C	60.000	1.000
O	N	D	PWR STAT	C	60.000	4.000
O	Y	E	SWITCHGR	D	1.000	1.000
I	Y	D	SHORTSCH	D	10000.000	1.000
O	N	E	OPERATOR	C	60.000	1.000
O	Y	F	4.2.1.3P	D	1.000	1.000
I	Y	F	4.2.1.3P	D	1.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.3P NAME: POWER SOURCE MANAGEMENT

PREPARED BY: R.C. WEAVER

REVISED BY: RALEY/BOWMAN

REVISION: 1

REVISION DATE: 07/09/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/09/85

DESCRIPTION:

MONITOR SOURCE STATUS. AUTOMATICALLY REGULATE OUTPUT AND ENERGY STORAGE UNITS. CONTROL SOURCE SWITCHING AND CONNECTIONS TO MAIN POWER BUSESSES. GENERATE ALERTS.

FUNCTION SOURCES: RFP C-4-2.2.3.D

RFP C-4-2.2.3.F

CRITICALITY - RECOVERY TIME: 1

IMPACT: 3

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 3

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.3.D AUTO POWER SYSTEM LOAD CTRL

RFP C-4-2.2.3.F RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.3P NAME: POWER SOURCE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	OPERATOR	C	60.000	1.000
O	Y	F	4.2.1.2P	D	1.000	1.000
I	Y	F	4.1.2.6P	C	60.000	0.100
O	Y	F	4.1.2.6P	C	60.000	0.100
I	Y	D	PWR STAT	C	1.000	1.000
O	Y	E	ENERGYST	D	1.000	0.100
O	Y	E	PWRSWTCH	D	1.000	0.100
I	Y	E	ENERGYST	C	1.000	3.000
I	Y	F	4.2.1.2P	D	1.000	1.000
I	Y	E	CHRG/REG	C	60.000	1.000
O	Y	E	CHRG/REG	D	60.000	0.100
I	Y	E	OPERATOR	D	60.000	0.050
I	Y	E	PWRSWTCH	C	1.000	2.000
O	N	D	PWR STAT	C	1.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.4P NAME: ARRAY DEPLOYMENT

PREPARED BY: R.C. WEAVER

REVISION: 1

FUNCTION TYPE: C

REVISED BY: RALEY

REVISION DATE: 07/06/85

PROGRAM PHASE:

ENTERED DATE: 07/09/85

DESCRIPTION:

RESPOND TO MODE CHANGE COMMANDS TO DEPLOY OR RETRACT THE SOLAR ARRAY
TO THE POSITION REQUIRED FOR PLANNED OPERATIONS.

FUNCTION SOURCES: JSC 18740

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 1

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.4P NAME: ARRAY DEPLOYMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	E	SLRARRAY	D	1000.000	0.100
O	N	D	PWR STAT	D	1000.000	0.100
O	Y	E	SLRARRAY	D	1000.000	0.100
I	Y	D	MODESTAT	D	1000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.5P NAME: PROJECT ENERGY AVAILABLE
PREPARED BY: R.C. WEAVER
REVISION: 1
FUNCTION TYPE: C
REVISED BY: RALEY/BOWMAN
REVISION DATE: 07/09/85
PROGRAM PHASE:
ENTERED DATE: 07/09/85

DESCRIPTION:
OPERATE ON STORAGE AND ARRAY PERFORMANCE DATA AND ORBIT PARAMETERS
TO PRODUCE ENERGY AVAILABILITY FORECASTS IN SUPPORT OF SHORT TERM
SCHEDULING.

FUNCTION SOURCES: RFP C-4-2.2.3.D

CRITICALITY - RECOVERY TIME: 4 IMPACT: 6

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.3.D AUTO POWER SYSTEM LOAD CTRL

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.5P NAME: PROJECT ENERGY AVAILABLE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	PWR STAT	D	1000.000	1.000
I	N	D	EPHEMER	D	60.000	1.000
I	Y	F	4.2.1.1P	D	60.000	1.000
O	Y	F	4.2.1.1P	D	60.000	0.100
I	N	D	MASSPROP	D	1000.000	1.000
I	N	D	NAVSTATE	D	60.000	1.000
I	N	D	PWR STAT	D	1000.000	1.000

24-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.6P NAME: DEVICE MANAGEMENT

PREPARED BY: EASTON/DASHIELL/BOWMAN

REVISED BY:

REVISION: 0

REVISION DATE: 07/23/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/24/85

DESCRIPTION:

PROVIDES FAULT DETECTION AND ISOLATION, REDUNDANCY MANAGEMENT
AND AUTOMATIC RECONFIGURATION OF ELECTRICAL POWER SYSTEM
SENSORS AND EFFECTORS

FUNCTION SOURCES: RFP C-2-3.1.1
RFP C-4-2.1.10.2B

RFP C-4-2.1.9C

CRITICALITY - RECOVERY TIME: 3

IMPACT: 2

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 6

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	N	E	CHRG/REG	C	30.000	0.500
I	N	E	SWITCHGR	C	0.100	0.500
I	N	E	SLRARRAY	C	30.000	0.500
O	Y	D	PWR STAT	C	30.000	1.000
I	N	E	PWRSWTCH	C	0.100	0.500
I	N	E	ENERGYST	C	30.000	0.500

C-6

24-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.1.7P NAME: COMMAND I/F PROCESSING
PREPARED BY: EASTON/DASHIELL/BOWMAN REVISED BY:
REVISION: 0 REVISION DATE: 07/23/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/24/85

DESCRIPTION:
ACCEPT STATION OR GROUND OPERATOR COMMANDS FOR POWER SYSTEM
COMMAND, DISPLAYS AND CONTROLS

FUNCTION SOURCES: RFP C-2-3.1.1

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 1
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

TYPE	TRIGGER	SOURCE/DESTINATION TYPE CODE	INPUT/OUTPUT CODE RATE(SEC)	DATA AMOUNT (KBYTES)
I	Y	F 2.3.2P	D 100000.000	0.100
I	Y	F 3.4.2P	D 100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.1P NAME: MANAGE THERMAL LOAD

PREPARED BY: D. GRUNDITZ

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/03/85

PROGRAM PHASE:

ENTERED DATE: 07/08/85

DESCRIPTION:

CONTROL BUS AND RADIATOR FLUID FLOW TO DISSIPATE CUSTOMER PAYLOAD
AND SPACE STATION THERMAL LOADS.

FUNCTION SOURCES: RFP C-4-2.2.4.1b
REF CONF J8400076

MRWG J8400039

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 3

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.2.4.1.B MANAGE THERMAL LOAD
MRWG SAAX0307(28) CONTROL TEMPERATURE
RFP C-4-3.6.B PAYLOAD FACILITIES MGMT
MRWG SAAX0403(28) MANAGE THERMAL LOAD

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.1P NAME: MANAGE THERMAL LOAD

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	P/L IFHX	C	30.000	0.400
O	N	E	OPERATOR	C	30.000	0.800
I	N	D	TCS STAT	C	30.000	0.200
I	Y	D	SHORTSCH	C	30.000	0.050
I	Y	E	FL LOOPS	C	30.000	0.200
O	N	E	FLUIDCTL	C	30.000	0.100
I	N	E	FLUIDCTL	C	30.000	1.050
I	N	F	4.2.2.2P	C	30.000	0.050
O	N	D	TCS STAT	C	30.000	0.200
I	Y	F	3.4.2P	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.2P NAME: THERMAL DEVICE MANAGEMENT

PREPARED BY: D. GRUNDITZ

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/08/85

DESCRIPTION:

EXPERT MAINTENANCE DATA MANAGEMENT SYSTEM INCLUDES FAULT
DETECTION, REDUNDANCY MANAGEMENT

FUNCTION SOURCES: RFP, MRWG
J8400076

J8400039, CRSS

CRITICALITY - RECOVERY TIME: 3

IMPACT: 2

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.1.9.C MONITORING AND FAULT ISOLATION OF ORU'S

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.2P NAME: THERMAL DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	E	P/L IFHX	C	30.000	0.200
O	N	F	4.2.2.1P	C	30.000	0.050
I	N	E	FL LOOPS	C	30.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.3P NAME: PROJECT THERMAL LOAD CAPACITY

PREPARED BY: D. GRUNDITZ

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/08/85

DESCRIPTION:

DETERMINE AVAILABLE THERMAL LOAD CAPACITY FOR SCHEDULING SUPPORT
BASED ON CURRENT PERFORMANCE AND ORBIT PARAMETERS

FUNCTION SOURCES: RFP, MRWG J8400039
J8400076

CRSS, REF. CONFIG.

CRITICALITY - RECOVERY TIME: 3

IMPACT: 2

DATA PRIVACY CODE:

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-3.6.B PAYLOAD FACILITIES MGMT

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.3P NAME: PROJECT THERMAL LOAD CAPACITY

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	EPHEM	C	30.000	0.100
I	N	D	NAVSTATE	C	30.000	0.100
I	N	D	MASSPROP	C	30.000	0.100
I	N	D	TCS STAT	C	30.000	0.200
O	N	D	TCS STAT	C	30.000	0.200

24-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.2.4P NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: EASTON/DASHIELL/BOWMAN

REVISED BY:

REVISION: 0

REVISION DATE: 07/23/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/24/85

DESCRIPTION:

ACCEPT STATION AND GROUND OPERATOR COMMANDS FOR THERMAL SYSTEM
COMMAND, DISPLAYS, AND CONTROLS

FUNCTION SOURCES: RFP C-2-3.1.1

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.1P NAME: MECHANISM CONTROL/SAFETY

PREPARED BY: J. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/20/85

DESCRIPTION:

PROVIDES AUTOMATIC AND MANUAL CONTROL OF ALL PLATFORM STRUCTURE
MECHANISMS AND SENSORS/EFFECTORS; PROVIDES GENERAL SAFETY TESTS AND
SENDS SAFETY WARNING TO OPERATOR

FUNCTION SOURCES: RFP C-4-2.2.2.1.a

C-4-2.2.2.5.e

CRITICALITY - RECOVERY TIME: 1

IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 25

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

DISPLAYS:3 IOC;8 GROWTH; ALL UNDER 4.2.3.5---COMMAND INTERFACE
PROCESSING - GROWTH INCLUDES OMV, OTV MECHANISMS

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.1P NAME: MECHANISM CONTROL/SAFETY

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	E	STR MECH	C	2.000	1.200
I	Y	E	OPERATOR	D	3600.000	0.040
O	Y	E	STR MECH	D	3600.000	0.040
O	N	D	CORESTAT	D	3600.000	0.040
O	Y	E	OPERATOR	D	30.000	0.400

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.3P NAME: MANAGE DOCKING/BERTHING

PREPARED BY: J. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/20/85

DESCRIPTION:

PROVIDES SPACE STATION CREW WITH DATA AND CONTROLS TO CONFIRM DOCKING OR BERTHING OR SEPARATION OF NSTS, SSPE'S AND FREE FLYERS

FUNCTION SOURCES: RFP C-3-2.1.I,

C-4-2.2.7.1.M

CRITICALITY - RECOVERY TIME: 1

IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 10

DOC PARAGRAPH NO. DESCRIPTION

MRWG TDMX2560(37) DOCKING OPERATIONS

ADDITIONAL REQUIREMENTS:

-DISPLAYS: IOC 2; GROWTH 6; ALL SIZED UNDER 4.2.3.5

-GROWTH INCLUDES OMV AND OTV REQUIREMENTS

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.3P NAME: MANAGE DOCKING/BERTHING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	CORESTAT	C	1.000	0.060
O	Y	E	PORT	D	1.000	0.010
I	Y	E	OPERATOR	D	2.000	0.040
I	Y	E	PORT	D	1.000	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.4P NAME: DEVICE MANAGEMENT

PREPARED BY: J. DASHIELL

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/20/85

DESCRIPTION:

PROVIDES MEANS OF CONTROLLING H/W DEVICES ASSOCIATED WITH 4.2.3;

INCLUDES: (1) STRUCTURES/MECHANISMS AND SENSORS/EFFECTORS,

(2) DOCKING DETECTION, LATCHING

FUNCTION SOURCES: SHUTTLE APPLICATION
EXPERIENCE

REQUIREMENTS/DESIGN

CRITICALITY - RECOVERY TIME: 1

IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 10

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

THIS CODE/DATA PARALLELS THE SOP'S DEVELOPED FOR SHUTTLE SYSTEMS

-CONTROL OF H/W, TESTING ETC. OF ALL DEVICES ASSOCIATED WITH
4.2.3

-DISPLAYS: IOC 5, GROWTH 15

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.4P NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.5P NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: J. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/20/85

DESCRIPTION:

PTOVIDES APPLICATION S/W TO INTERFACE WITH SPACE STATION MPAC'S
AND GROUND TELEMETRY FOR DISPLAYS ASSOCIATED WITH 4.2.3 AND
CONTROL OF 4.2.3 FUNCTIONS.

FUNCTION SOURCES: SHUTTLE DESIGN

EXPERIENCE

CRITICALITY - RECOVERY TIME: 1

IMPACT: 1

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 10

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

- ALL DISPLAY SIZING FOR 4.2.3
- TOTAL DISPLAYS: IOC 12; GROWTH 33
- MAX NUMBER DISPLAYS UP: IOC 4, GROWTH 10
- HALF GRAPHICS, HALF TEXT

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.3.5P NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.1P NAME: COMMUNICATION NETWORK CONTROL

PREPARED BY: R. RADECKI

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/08/85

DESCRIPTION:

MAINTAIN SCHEDULES FOR ALL COMMUNICATIONS LINKS, AND PRIORITIES FOR CONNECTIONS. SCHEDULE PHYSICAL RESOURCES TO MEET SCHEDULE. CONTROL LINK SIGNALLING AND PROTOCOL MESSAGES IN REAL TIME. MANAGE TRAFFIC FLOW IN REAL TIME.

FUNCTION SOURCES: RFP C-4 2.1.13
CRSS 1.1.9

RFP C-4-2.2.6.1
CRSS 7.2.2.1

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

CRSS 0.3	GOP TRANSMIT/RECEIVE THROUGH TDRSS
CRSS 0.3	COMMUNICATE PRIMARILY THROUGH TDRSS
CRSS 5.4.2	PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE
CRSS 2.2.3.5	PACKET REQ'TS MUST NOT PRECLUDE TDM
CRSS 6.1.1	SUPPORT CUSTOMER PAYLOAD COMMAND
CRSS 1.2.3	SUPP. AGGREGATE END-TO-END RATES THROUGHPUT PER PHASE B RFP
CRSS 1.2.1	SUPPORT PEAK AND AVER. DATA RATES FROM PHASE B RFP

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.1P NAME: COMMUNICATION NETWORK CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.2.5.5P	D	60.000	0.100
I	Y	D	COMMSTAT	C	1.000	1.000
O	Y	F	4.2.5.2P	C	10.000	1.000
I	Y	D	NTWKPLAN	C	5.000	0.500
O	Y	D	COMMSTAT	C	60.000	2.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.2P NAME: COMMUNICATION EQUIPMENT CONTROL

PREPARED BY: R. RADECKI

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/08/85

DESCRIPTION:

INTERFACES TO COMMUNICATIONS HARDWARE AND SEND ON/OFF, MODE CONTROL, CONFIGURATION, AND OTHER CONTROL SIGNALS TO EQUIPMENT, INCLUDING REAL-TIME SWITCHING TO SUPPORT TRAFFIC FLOW.

FUNCTION SOURCES: SS RFP, SS
CRSS

REF. CONFIG,

CRITICALITY - RECOVERY TIME: 1

IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS	6.1.1	SUPPORT CUSTOMER PAYLOAD COMMAND
CRSS	1.1.9	CUSTOMER OPTION FOR REAL TIME P/L INTERACTION
CRSS	2.2.3.5	PACKET REQ'TS MUST NOT PRECLUDE TDM
CRSS	5.4.1	PROVIDE DIGITAL DATA COMM AMONG ELEMENTS
CRSS	5.2.1	SUPPORT VIDEO DISTRIBUTION AMONG ELEMENTS
CRSS	5.2.2	SUPPORT VIDEO DISTRIBUTION TO CUSTOMER
CRSS	5.4.2	PROVIDE BUFFERING WHEN LINKS ARE NOT AVAILABLE
CRSS	5.2.5	SUPPORT DIST OF NTSC VIDEO SIGNALS

ADDITIONAL REQUIREMENTS:

CRSS 1.1.6-SYSTEM IS EXPANSIONABLE; 1.1.9,6.2.1-PROVIDE REAL-TIME CONTROL; 8.1.1-SUPPORT HDWE INTERFACE VERIF.; RFP C3-2.2c-PROVIDE FAILURE RESTORATION CAPABILITY; RFP C4-2.1.9-SYSTEM SHOULD BE MAINTAINABLE

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.2P NAME: COMMUNICATION EQUIPMENT CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.2.5.1P	C	10.000	1.000
I	Y	F	4.2.5.3P	C	10.000	1.000
I	Y	F	4.2.5.4P	D	60.000	0.100
O	Y	E	COMEQUIP	C	0.001	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.3P NAME: COMMUNICATION EQUIPMENT STATUS MONITORING
PREPARED BY: R. RADECKI REVISION DATE: 07/03/85
REVISION: 0 PROGRAM PHASE:
FUNCTION TYPE: C ENTERED DATE: 07/08/85

DESCRIPTION:
COLLECT CONFIGURATION, HEALTH, STATUS, DIAGNOSTIC, AND OTHER SIGNALS
FROM HARDWARE, LOG DATA. FORMAT AND STORE DATA.

FUNCTION SOURCES: SS REF CONFIGURATION
SS RFP, CRSS

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 7.3.3 MONITOR, PROTECT DATA SYSTEM INTERFACES
CRSS 2.2.3.3 CUST PROVIDES IMPROVED BIT-ERROR RATES

ADDITIONAL REQUIREMENTS:

CRSS 1.2.2-MEASURE BER; 6.2.1.4-SYSTEM SHOULD BE MODIFIABLE IN
REAL TIME; 7.3.2-PROVIDE FAULT FINDING RESOURCES; 7.3.3-MONITOR
ALL INTERFACES; 8.0-PROVIDE VERIFICATION & TEST TOOLS

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.3P NAME: COMMUNICATION EQUIPMENT STATUS MONITORING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	COMEQUIP	C	10.000	1.000
O	N	D	CMONITOR	C	10.000	1.000
O	Y	F	4.2.5.2P	C	10.000	1.000
O	Y	F	4.2.5.4P	D	4000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.4P NAME: FAILURE DETECTION & RECOVERY

PREPARED BY: R. RADECKI

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/08/85

DESCRIPTION:

EVALUATE SYSTEM MONITOR DATA.

INITIATE AUTOMATIC RECONFIGURATION. IMPLEMENT RECOVERY

PROCEDURES. GENERATE SYSTEM HEALTH STATUS.

FUNCTION SOURCES: CRSS, SS-RFP

SS. REF. CONFIG

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

DOC PARAGRAPH NO.	DESCRIPTION
CRSS 7.3.2	DIFFERENTIATE P/L, SSIS FAULTS
CRSS 2.2.3.3	CUST PROVIDES IMPROVED BIT-ERROR RATES

ADDITIONAL REQUIREMENTS:

CRSS 7.1.1-PROVIDE TROUBLESHOOTING/CONTINGENCY PROC; 7.3.2-DIFFERENTIATE PAYLOAD/SSIS FAULTS; C3-2.2-PROVIDE FAILSAFE PROC FOR CRITICAL FUNCTIONS; 3.1a-MINIMIZE CUST INTERRUPTIONS; 3.2-PROVIDE MAINT FEATURES; 3.3-OPTIMIZE AUTOMATION

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.4P NAME: FAILURE DETECTION & RECOVERY

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.2.5.3P	D	4000.000	1.000
O	Y	F	4.2.5.2P	D	60.000	0.100
I	Y	F	4.2.5.5P	D	100000.000	1.000
I	N	D	RECONFIG	D	4000.000	10.000
I	Y	D	CMONITOR	D	10.000	5.000
O	N	D	COMMSTAT	D	10.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.5P NAME: COMMAND PROCESSING

PREPARED BY: R. RADECKI

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/03/85

PROGRAM PHASE:

ENTERED DATE: 07/08/85

DESCRIPTION:

AUTHENTICATE COMMANDS TO C&T. CONDUCT CONSTRAINT/CONSISTENCY CHECKS. SEND IMPLEMENTATION MESSAGES TO OTHER FUNCTIONS. GENERATE A RESPONSE.

FUNCTION SOURCES: CRSS, SS RFP,

SS REF. CONFIG

CRITICALITY - RECOVERY TIME: 2

IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

CRSS 1.1.9 CUSTOMER OPTION FOR REAL TIME P/L INTERACTION

ADDITIONAL REQUIREMENTS:

CRSS 6.1.6-DIFFERENTIATE COMMANDS: RESTRICTED/CONSTRAINED

SS-RFP-C3-2.1a - ACCOMMODATE PROGRESSIVE MODIFICATION

C3-3.3 - OPTIMIZE AUTONOMY & AUTOMATION

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.5P NAME: COMMAND PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.2.5.6P	D	10.000	0.100
O	Y	F	4.2.5.1P	D	60.000	0.100
O	Y	F	4.2.5.4P	D	100000.000	1.000
O	Y	F	4.2.5.7P	D	10.000	0.100
I	Y	F	4.2.5.6P	D	10.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.6P NAME: COMMUNICATION INTERFACE CONTROL
PREPARED BY: R. RADECKI REVISION DATE: 07/03/85
REVISION: 0 PROGRAM PHASE:
FUNCTION TYPE: C ENTERED DATE: 07/08/85

DESCRIPTION:
INTERFACE C&T SYSTEM TO DMS, INCLUDING COMMAND & CONTROL, OTHER
PROCESSORS, CONTROL DATA BASE, AND SECONDARY MASS STORAGE

FUNCTION SOURCES: CRSS, SS-RFP SS REF. CONFIG

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

CRSS 1.1.9 CUSTOMER OPTION FOR REAL TIME P/L INTERACTION

ADDITIONAL REQUIREMENTS:
CRSS 1.1.9-SUPPORT REAL-TIME OPERATIONS; C3-2.1a - ACCOMMODATE
PROGRESSIVE MODIFICATION

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.6P NAME: COMMUNICATION INTERFACE CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	OBJSTATE	C	10.000	5.000
I	Y	F	4.2.5.5P	D	10.000	0.100
I	Y	F	4.1.2.6P	C	600.000	0.100
I	Y	F	3.4.2P	D	10.000	0.100
O	Y	F	4.2.5.7P	D	10.000	5.000
O	Y	F	4.2.5.5P	D	10.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.7P NAME: TELEMETRY CONTROL

PREPARED BY: R. RADECKI

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/03/85

PROGRAM PHASE:

ENTERED DATE: 07/08/85

DESCRIPTION:

COLLECT TELEMETRY DATA FROM ALL SS SENSORS AND PROCESSORS. BUILD
AND SEND TELEMETRY MESSAGES

FUNCTION SOURCES: CRSS, SS-RFP,

SS REF CONFIG

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: L

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.2.5.7P NAME: TELEMETRY CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	D	CMONITOR	D	10.000	5.000
O	Y	F	1.1.3P	D	60.000	0.070
I	Y	F	1.1.3P	D	60.000	0.070
I	Y	D	COMMSTAT	D	10.000	5.000
I	Y	D	TELTABLE	D	60.000	0.100
O	Y	F	1.2.3P	D	60.000	0.070
I	Y	F	4.2.5.5P	D	10.000	0.100
I	Y	F	4.2.5.6P	D	10.000	5.000
I	Y	F	1.2.3P	D	60.000	0.070

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.1P NAME: CAUTIONS AND WARNINGS

PREPARED BY: P. BOWMAN

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: U

PROGRAM PHASE:

ENTERED DATE: 07/08/85

DESCRIPTION:

ANNUNCIATION OF CAUTION AND WARNING MESSAGES

FUNCTION SOURCES: RFP C-4-2.1.11.1 RFP C-4-2.1.11.2.C
 RFP C-4-2.2.5.3.C.4 RFP C-4-3.10.1.C

CRITICALITY - RECOVERY TIME: 1

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
 REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

RFP	C-4-2.1.11.1	HAZARD CTRL BY WARNING DEV, SPECIAL PROC, EMERGENCY DEVICES
RFP	C-4-2.1.11.2.C	CRITICAL SYSTEM FAILURE NOTIFICATION
RFP	C-4-2.1.10.2.B	REDUNDANCY MGMT. & STATUS
RFP	C-4-2.2.7.1.F	PROVIDE WARNING & COMMAND FOR UNSAFE SSPE TRAFFIC CONDITIONS
RFP	C-4-2.1.11.2.E	DETECT, MONITOR, CONTROL HAZARDOUS FLUIDS
RFP	C-4-2.2.11.1e	SUPPORT EMU DECONTAMINATION
CRSS	5.4.5	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.1P NAME: CAUTIONS AND WARNINGS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	4.5.2P	D	12000.000	0.060
I	Y	F	4.5.3P	D	12000.000	0.010
O	N	D	CORESTAT	D	10000.000	0.100
O	Y	E	OPERATOR	D	10000.000	1.000
I	Y	F	4.5.1P	D	10000.000	0.060
I	Y	F	4.5.5P	D	86400.000	0.140

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.2P NAME: ABNORMAL AND EMERGENCY PROCEDURES
 PREPARED BY: REVISION DATE: 07/03/85
 REVISION: 0 PROGRAM PHASE:
 FUNCTION TYPE: U ENTERED DATE: 07/08/85

DESCRIPTION:
 SELECTION AND DISPLAY OF APPROPRIATE ABNORMAL OR
 EMERGENCY PROCEDURES DUE TO EXISTENCE OF A CAUTION OR
 WARNING CONDITION, RESPECTIVELY

FUNCTION SOURCES: RFP C-3-2.3.B RFP C-4-2.1.11.2.A.1
 RFP C-4-2.1.11.4.A RFP C-4-2.2.7.1.R

CRITICALITY - RECOVERY TIME: 1 IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 4
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

 CRSS 7.1.1 CRITICAL/CONTINGENCY PROCEDURE SUPPORT
 RFP C-3-2.2.A INDEPENDENT EMERGENCY DETECTION & CTRL
 RFP C-4-2.1.11.2.A1 INDEPENDENT EMERGENCY DETECT & CTRL
 RFP C-4-2.2.7.1.R PERFORM COLLISION AVOIDANCE MANUVERS
 RFP C-3-3.3b MANUAL OVERRIDES, INHIBITS OF AUTOMATIC FUNCTIONS
 RFP C-4-3.5.4 SS CTRL & SAFTEY OF FF, SATELLITES DURING PROX OPS
 RFP C-4-2.1.11.4.a CREW ABLE TO OVERRIDE AUTOMATIC SAFING

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.2P NAME: ABNORMAL AND EMERGENCY PROCEDURES

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	P/L STAT	D	10000.000	0.500
O	Y	F	4.3.2.3P	D	86400.000	2.000
I	Y	F	4.5.5P	D	86400.000	0.140
I	N	D	MODESTAT	D	10000.000	1.000
I	Y	F	4.5.3P	D	12000.000	0.010
I	N	D	PROCEDUR	D	12000.000	6.000
I	Y	F	4.5.2P	D	12000.000	0.060
I	Y	F	4.5.1P	D	10000.000	0.060
I	Y	F	4.5.4.1P	D	10000.000	0.700

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.3P NAME: AUTOMATIC CONTROL PROCESSING

PREPARED BY: G. GERSHZOHN

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/08/85

DESCRIPTION:

AUTOMATIC CORE SYSTEM CONTROL ACTIVITY IN
RESPONSE TO SPECIFIC SUBSYSTEM MALFUNCTIONS (TBD) AND
EXTRAVEHICULAR HAZARDS (TBD)

FUNCTION SOURCES: RFP C-4-2.1.10.1

CRITICALITY - RECOVERY TIME: 1

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 11

DOC PARAGRAPH NO. DESCRIPTION

RFP C-4-2.1.10.1 SAFETY CRITICAL SYSTEMS FO/FS/RESTORABLE

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.3P NAME: AUTOMATIC CONTROL PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.OP	D	86400.000	3.000
I	Y	F	4.3.2.2P	D	86400.000	2.000
O	Y	E	PLAT P/L	D	86400.000	1.000
I	N	D	CORESTAT	D	86400.000	0.500
I	N	D	P/L STAT	D	86400.000	0.200

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.4P NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: G. GERSHZOHN

REVISED BY:

REVISION: 0

REVISION DATE: 07/03/85

FUNCTION TYPE: U

PROGRAM PHASE:

ENTERED DATE: 07/08/85

DESCRIPTION:

CONTROL BY CREW OF SS OPERATIONS AND SUBSYSTEMS
IN RESPONSE TO AN ABNORMAL OR EMERGENCY CONDITION

FUNCTION SOURCES: RFP

CRSS

CRITICALITY - RECOVERY TIME: 1

IMPACT: 2

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

CRSS 5.4.5

SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA

RFP C-3-2.2c

FAIL OP/FAIL SAFE/RESTORE-SAFETY, MISSION CRITICAL SYSTEMS

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.3.2.4P NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.1P NAME: GROUND TRACK DETERMINATION

PREPARED BY: J. N. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

PROVIDES EARTH GROUND TRK DATA FOR SS CUSTOMER USAGE. SERVICES ARE:
(1) SS SUB-SATELLITE LATITUDE AND LOGITUDE. (2) SPECIFIC INSTRUMENT
LINE-OF-SIGHT LATITUDE & LONGITUDE. BOTH SERVICES ARE TO AN ACCURACY
OF TBD METERS.

FUNCTION SOURCES: CRSS 4.1.3

COMM1014(14)

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

CRSS 4.1.3

PROVIDE ORBIT POSITION, TBD M ACCURACY

MRWG COMM1014(14)

GROUND TRACK DETERMINATION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.1P NAME: GROUND TRACK DETERMINATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	F	NAVSTATE	C	1.000	0.100
I	Y	E	CUST/OPR	D	3600.000	0.050
O	N	E	PLAT P/L	C	1.000	0.100
I	N	D	SHORTSCH	C	1.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.2P NAME: MAGNETIC FIELD DETERMINATION

PREPARED BY: J. N. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

CALCULATES MAGNETIC FIELD VECTOR IN VICINITY OF SS. BASED ON THE SS POSITION VECTOR AND LOCAL FIELD. DATA EXPRESSED IN INERTIAL REFERENCE COORDINATES & PROVIDED TO EXPERIMENT USERS (ANCILLARY DATA.)

FUNCTION SOURCES: 5A AX 0207(4)

SSRCD 4.4.2.1.2C

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

MRWG SAAX0207(4) MAGNETIC FIELD DETERMINATION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.2P NAME: MAGNETIC FIELD DETERMINATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	F	PLAT P/L	C	2.000	0.010
I	Y	D	OP EVENT	C	2.000	0.020
I	N	D	ENVIRON	C	2.000	0.020
I	N	D	NAVSTATE	C	2.000	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.3P NAME: PALLET COARSE POINTING

PREPARED BY: J. N. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

POSITIONS INSTRMNT PALLET TO PNT A SPECIFIC UNIT VECTOR IN THE PLT
COORDNATE SYSTM TO A SPECFC CELESTIAL TRGT OR AN EARTH-FIXED TRGT.
THE PNTING ACCRCY IS DEFINED AS COARSE (WITHN SS ATTITUDE KNLDGE PLS
TRANSFORMATION). FNR PNTING PRVDD BY PYLODS.

FUNCTION SOURCES: RFP C-2-3.1.2
C-4-2.1.2.1

C-2-4.4.C
C-4-2.2.7.1.L

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y
REQUIREMENTS:

NUMBER: 1

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

RFP C-4-2.2.7.2B

CRSS-4.1.4

-ASSUME 2ND PALLET FOR GROWTH

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.3P NAME: PALLET COARSE POINTING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	PALLET	C	2.000	0.030
I	N	D	EPHEMER	C	2.000	0.100
I	N	D	NAVSTATE	C	2.000	0.120
I	Y	E	CUST/OPR	D	7200.000	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.4P NAME: RELATIVE ALIGNMENT DETERMINATION

PREPARED BY: J. N. DASHIELL

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

DETERMINES HIGH RESOLUTION ALIGNMENT BETWEEN A NAVIGATION BASE &
TUDE MEASUREMENTS & COMPUTED ATTITUDE DATA.

FUNCTION SOURCES: RFP C-4-2.2.7.1.T

C-4-2.2.7.2.B

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP	C-4-2.2.7.2b	DETERMINE POINTING MOUNT ATTITUDE TO 0.01 DEG
CRSS	4.1.4	PROVIDE ATTITUDE, TBD DEG. ACCURACY
RFP	C-4-2.2.7.1.T	PROVIDE NAV DATA TO PAYLOAD
RFP	C-4-2.1.2.1	ARTICULATING MOUNTS FOR EXTERNAL PAYLOADS
RFP	C-4-2.2.7.1.L	PROVIDE POINTING CTRL TO PAYLOADS & APPENDAGES

ADDITIONAL REQUIREMENTS:

THIS SERVICE FOR SS USERS PARALLELS THE NEEDS THAT EXISTED FOR THE
SKYLAB PROGRAM. ALIGNMENT TRANSFORMATIONS WERE DETERMINED FROM MUL-
TIPLE OBSERVATIONS-SUN, STARS AND MANEUVER UNIT VECTORS-FROM NAVI-
GATION BASE TO EXPERIMENT MOUNTING COORDINATES.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.1.4P NAME: RELATIVE ALIGNMENT DETERMINATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	E	STARTRAK	C	2.000	0.150
O	N	D	CORESTAT	C	2.000	0.150
O	N	E	PLAT P/L	C	2.000	0.150
I	N	D	EPHEMER	C	2.000	0.150
I	N	D	NAVSTATE	C	2.000	0.050
O	Y	F	4.1.2.6P	C	2.000	0.100
I	N	E	ALIGN S	C	2.000	0.150

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.2P NAME: ENVIRONMENT MONITOR
PREPARED BY: J. N. DASHIELL REVISED BY:
REVISION: 0 REVISION DATE: 07/10/85
FUNCTION TYPE: C PROGRAM PHASE:
ENTERED DATE: 07/11/85

DESCRIPTION:

PROVIDES GENERAL MONITORING OF INDUCED CONTAMINATION ENVIRONMENT
SOURCES AND PROVIDES DATA TO CORE AND CUSTOMER USERS IN CORE & P/L
STATUS FILES. ENVIRONMENT SOURCES INCLUDE ONBOARD SS AND NEARBY
SSPE'S.

FUNCTION SOURCES: C-4-2.1.3-3 TABLE C-4-II
SAAX 0110(35)

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 10
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

MRWG SAAX0110(35) ENVIRONMENTAL MONITOR

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.4.2P NAME: ENVIRONMENT MONITOR

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	MAGMETER	C	10.000	0.400
O	N	D	CORESTAT	C	10.000	1.000
I	Y	E	ENV SENS	C	0.100	0.500
I	N	D	SHORTSCH	C	10.000	0.100
O	N	D	ENVIRON	C	0.100	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.1P NAME: MONITOR CORE SYSTEM'S STATUS
 PREPARED BY: J. N. DASHIELL REVISED BY:
 REVISION: 0 REVISION DATE: 07/10/85
 FUNCTION TYPE: C PROGRAM PHASE:
 ENTERED DATE: 07/11/85

DESCRIPTION:

RECEIVES STATUS DATA FROM ALL CORE SYSTEMS, PROCESSES DATA IF NECES-
 SARY, MAINTAINS A CORE OPERATIONAL DATA BASE (CORE STATUS). PRIME
 PURPOSE IS TO MONITOR HEALTH OF EACH SYSTEM, ISSUE COMMANDS TO
 CAUTION & WARNING THAT DATA ARE OUT OF TOLERANCE.

FUNCTION SOURCES: C-4-2.1.9.C C-4-2.1.11.2
 C-4-2.2.7.1.I C-4-2.2.3.E

CRITICALITY - RECOVERY TIME: 3 IMPACT: 3

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 4
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
CRSS	7.3.2	DIFFERENTIATE P/L, SSIS FAULTS
RFP	C-4-2.2.7.1.I	PROVIDE PROPELLENT USAGE DATA
RFP	C-4-2.1.9.C	MONITORING AND FAULT ISOLATION OF ORU'S
RFP	C-4-2.1.11.2.A1	INDEPENDENT EMERGENCY DETECT & CTRL
RFP	C4-2.2.11.2.B.2	MMU, & EMU SERVICE/PERFORMANCE TREND DATA ANALYSIS
RFP	C-4-2.2.12.2.H	FLUID MONITOR & CTRL
RFP	C-4-2.2.3.e	PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS
CRSS	7.1.1	CONSUMABLES MANAGEMENT
CRSS	8.5.1	MAINTAIN STATUS OF END-TO-END COMM. SYSTEM

ADDITIONAL REQUIREMENTS:
 DISPLAYS: IOC 2; GROWTH 4

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.1P NAME: MONITOR CORE SYSTEM'S STATUS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	E	CORE OPR	C	10.000	1.200
O	Y	F	4.5.5P	C	86400.000	1.400
I	N	D	CORESTAT	C	10.000	3.000
O	Y	F	4.3.2.2P	D	10000.000	0.060
O	Y	F	4.3.2.1P	D	10000.000	0.060
O	Y	F	4.5.4.1P	D	8640.000	0.700
I	N	D	FLT STAT	C	10.000	0.600

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.2P NAME: MONITOR CUSTOMER SYSTEMS STATUS
 PREPARED BY: J. N. DASHIELL REVISED BY:
 REVISION: 0 REVISION DATE: 07/10/85
 FUNCTION TYPE: U PROGRAM PHASE:
 ENTERED DATE: 07/11/85

DESCRIPTION:
 CENTRAL MEANS OF MONITORING OPERATIONAL STATUS OF PARTICULAR PAY-
 LOADS TO DETERMINE OFF-NOMINAL CONDITIONS AND SAFETY IMPACTS.

FUNCTION SOURCES: C-4-2.2.5.2.A C-4-2.2.5.3.K
 C-4-2.2.12.2.H C-4-2.2.3.E

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 3
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
MRWG	COMM1110(38)	SPACE STATION CUSTOMER SYSTEM STATUS
MRWG	COMM1312(20)	GROUND CUSTOMER SYSTEM STATUS
MRWG	TDMX2150(51)	VOLTAGE/CURRENT MONITOR
CRSS	7.1.1	CONSUMABLES MANAGEMENT
MRWG	SAAX0008(61)	FLUIDS STATUS DATA
CRSS	7.3.4	MEASURE, CONTROL RESOURCES AVAILABLE
CRSS	7.3.3	MONITOR, PROTECT DATA SYSTEM INTERFACES
RFP	C-4-2.2.5.2.A	STD WORKSTATION, PROCESSING, W/P, MAIL, GRAPHICS FUNCTIONS
RFP	C-4-2.2.5.3.K	SUBSYSTEM MONITOR & CTRL BY CREW, GROUND
RFP	C-4-2.2.3.e	PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS
CRSS	7.3.2	DIFFERENTIATE P/L, SSIS FAULTS
RFP	C-4-2.2.12.2.H	FLUID MONITOR & CTRL

ADDITIONAL REQUIREMENTS:
 7.3.2, 7.3.3, 7.3.4, 7.1.1, SAAX0008 (61), COMM 1110(38),
 COMM 1312(20), TDM2150(51), DISPLAYS: IOC 1; GROWTH 2

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.2P NAME: MONITOR CUSTOMER SYSTEMS STATUS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.3.2.1P	D	12000.000	0.060
O	N	E	CUST/OPR	C	10.000	1.200
I	N	D	P/L STAT	C	10.000	1.200
O	Y	F	4.3.2.2P	D	12000.000	0.060

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.3P NAME: MASS PROPERTIES CONFIGURATION UPDATE
 PREPARED BY: J. N. DASHIELL REVISED BY:
 REVISION: 0 REVISION DATE: 07/10/85
 FUNCTION TYPE: C PROGRAM PHASE:
 ENTERED DATE: 07/11/85

DESCRIPTION:
 CONTROL TO DEFINE PLATFORM MASS & INERTIA PROPERTIES TO CORE. ALLOWS
 CORE INPUT SPECIFICATION AND AUTOMATIC UPDATES. CONFIGURATIONS
 INCLUDE SPACE STATION.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3 IMPACT: 3

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:
 DISPLAYS: IOC 1; GROWTH 1

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.3P NAME: MASS PROPERTIES CONFIGURATION UPDATE

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	N	D	MASSPROP	C	360000.000	1.000
O	N	D	MASSPROP	C	10.000	0.010
I	N	D	P/L STAT	C	10.000	0.100
I	N	D	CORESTAT	C	10.000	0.100
O	Y	F	4.3.2.1P	D	12000.000	0.010
O	Y	F	4.3.2.2P	D	12000.000	0.010

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.1P NAME: FAULT ANALYSIS

PREPARED BY: J. N. DASHIELL

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

INVOKED BY 4.5.1 & 4.5.2, DEFINED SYSTEM IS
 ANALYZED FROM SPECIFIED DATA CONTAINED IN CORE STATUS & P/L STATUS
 DATA FILES. ASSUMED PARTIALLY AUTOMATED FOR IOC & EXPERT SYSTEMS
 ADDED IN GROWTH PERIOD.

FUNCTION SOURCES: RFP C-4-2.2.5.2.A

RFP C-4-2.2.5.3.H

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
 REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

DISPLAYS: IOC 5; GROWTH 20

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.1P NAME: FAULT ANALYSIS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.5.4.2P	D	3600.000	0.700
I	N	D	FLT STAT	D	3600.000	0.700
O	N	D	CORESTAT	D	14400.000	0.700
O	N	E	GND OPR	D	7200.000	0.700
I	Y	F	4.5.4.3P	D	14400.000	1.400
I	N	D	CORESTAT	D	3600.000	0.700
O	Y	F	4.5.4.3P	D	3600.000	0.350
O	Y	F	4.3.2.2P	D	10000.000	0.700
I	Y	F	4.5.1P	D	8640.000	0.700

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.2P NAME: FAULT CORRECTION

PREPARED BY: J. N. DASHIELL

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

INVOKED BY 4.5.1 & 4.5.2, DEFINED SYSTEM &

FAULT ANALYSIS DATA ARE USED TO DERIVE A FAULT CORRECTION(S). ASSUMED
PARTIALLY AUTOMATED FOR IOC & EXPERT SYSTEMS ADDED DURING GROWTH
PERIOD.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

DISPLAYS: IOC 5; GROWTH 20

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.2P NAME: FAULT CORRECTION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
		TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
I	N	D	FLT STAT	D	3600.000	0.700
I	N	E	GND OPR	D	86400.000	0.700
O	N	E	GND OPR	D	86400.000	7.000
I	Y	F	4.5.4.1P	D	3600.000	0.700
I	N	D	CORESTAT	D	3600.000	0.700
I	N	D	SIMMODEL	D	86400.000	35.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.3P NAME: TREND ANALYSIS

PREPARED BY: J. N. DASHIELL

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/11/85

DESCRIPTION:

INVOKED BY 4.5.4; RESPONDS WITH DATA TO INDICATE PARAMETER VALUES, RATE OF CHANGE, ESTIMATES OF OUTSIDE THRESHOLD LIMITS. TREND DATA AND FORECAST LIMITED TO SHORT TERM, TBD HOURS.

FUNCTION SOURCES: C4-2.2.11.2.B

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

RFP C4-2.2.11.2.B.2 MMU, & EMU SERVICE/PERFORMANCE TREND DATA ANALYSIS

ADDITIONAL REQUIREMENTS:

DISPLAYS: IOC 2;GROWTH 4

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.4.3P NAME: TREND ANALYSIS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	COREHIST	C	3600.000	1.400
I	Y	E	GND OPR	D	3600.000	0.350
O	N	E	GND OPR	D	3600.000	0.700
I	Y	D	FLT STAT	D	3600.000	0.700
O	Y	F	4.5.4.1P	D	14400.000	1.400
I	N	D	CORESTAT	C	1800.000	7.000
I	Y	F	4.5.4.1P	D	3600.000	0.350
I	N	D	COREHIST	D	3600.000	3.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.5P NAME: SYSTEM TEST AND EVALUATION
 PREPARED BY: J. N. DASHIELL REVISED BY:
 REVISION: 0 REVISION DATE: 07/10/85
 FUNCTION TYPE: C PROGRAM PHASE:
 ENTERED DATE: 07/11/85

DESCRIPTION:

INVOKED BY 4.5.1 OR 4.5.2. DETERMINES HEALTH & STATUS OF IDENTIFIED
 SYSTEM ELEMENTS, CORE & PAYLOAD. PERFORMS SELF TESTS AND COMPARISON
 AGAINST ESTABLISHED SYSTEM NORMS. RESULTS RETURNED TO 4.5.1 OR
 4.5.2. CANDIDATE FOR EXPERT SYSTEM.

FUNCTION SOURCES: C-4-2.2.5.2.A C-4-2.2.5.3.H

CRITICALITY - RECOVERY TIME: 3 IMPACT: 5

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
 REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.5P NAME: SYSTEM TEST AND EVALUATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	4.3.2.1P	D	86400.000	0.140
O	N	D	P/L STAT	D	86400.000	0.140
O	Y	F	4.3.2.2P	D	86400.000	0.140
O	N	D	CORESTAT	D	86400.000	1.400
I	N	F	4.5.1P	C	86400.000	1.400
I	Y	F	4.OP	D	2.000	0.350
O	Y	F	4.OP	D	2.000	1.400

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.6P NAME: COMMAND INTERFACE PROCESSING
PREPARED BY: J. N. DASHIELL REVISED BY:
REVISION: 0 REVISION DATE: 07/10/85
FUNCTION TYPE: PROGRAM PHASE:
ENTERED DATE: 07/11/85

DESCRIPTION:
PROVIDES INTERFACE COMMAND & CONTROL FOR ALL SOFTWARE & HARDWARE
ASSOCIATED WITH FUNCTION SET. 4.5. IMPLEMENTS GROUND COMMANDS TO S/W
& H/W UNITS. OVERRIDES AUTOMATIC CONTROL WHEN COMMANDED.

FUNCTION SOURCES: C-4-2.2.5.1.A C-4-2.2.5.2.A
6.1.5.1,6.2.1.3

CRITICALITY - RECOVERY TIME: 3 IMPACT: 3

DATA PRIVACY CODE: U

ALARMS/ANNUNCIATIONS - REQUIRED: NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:
-TOTAL DISPLAYS: IOC 23; GROWTH 65
-MAX DISPLAYS UP IS 4
-HALF TEXT/ HALF GRAPHICS

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 4.5.6P NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.1P NAME: UPDATE/ACCESS AND SYNCHRONIZATION
PREPARED BY: KILLINGBECK
REVISION: 0
FUNCTION TYPE: C
REVISED BY:
REVISION DATE: 07/10/85
PROGRAM PHASE:
ENTERED DATE: 07/11/85

DESCRIPTION:

PROVIDE ABILITY TO MAKE UPDATES TO DATA BASE, AND TO ACCESS INFORMATION IN DATA BASE. SYNCHRONIZE UPDATES VS. ACCESS TO ASSURE COHERENT DATA SETS. CHECK UPDATE/ACCESS AUTHORIZATION OF USERS. PROVIDE DATA BASES INTEGRITY CHECKS & FAILURE RECOVERY MECHANISMS.

FUNCTION SOURCES: C-4-2.2.5.3.A; C-4-2.2.5.3.M

CRITICALITY - RECOVERY TIME: 3 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.1P NAME: UPDATE/ACCESS AND SYNCHRONIZATION

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	ALL FNCT	D	10.000	0.100
I	Y	D	ALL DS	D	10.000	50.000
O	Y	D	ALL DS	D	10.000	0.100
O	Y	F	ALL FNCT	D	10.000	0.500

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.2P NAME: DATA FILE MANAGEMENT

PREPARED BY: KILLINGBECK

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/12/85

DESCRIPTION:

UPDATE AND ACCESS SEQUENTIAL SETS OF DATA (FILES). CHECK AUTHORIZATION FOR ACCESS/UPDATE PER USER. STORE SUBSYSTEMS & PLATFORM DATA AT RATES ABOVE 225 KBPS EACH (NOTE 1).

FUNCTION SOURCES: 2.2.5.3.N

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

NOTE 1: THIS REQUIREMENT "TO ACCEPT, FORMAT, MERGE, & STORE ..." IS A KEY DESIGN DRIVER, IF THE INTENT IS FOR ANY ONBOARD PROCESSING AT THESE RATES.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.2P NAME: DATA FILE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	P/LCONST	C	1.000	225.000
O	N	E	OPERATOR	D	3600.000	1.000
I	Y	E	OPERATOR	D	3600.000	0.100
O	Y	D	TEMPSTOR	C	1.000	225.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.3P NAME: MASS MEMORY RESOURCE MANAGEMENT
PREPARED BY: KILLINGBECK
REVISION: 0
FUNCTION TYPE: C
REVISED BY:
REVISION DATE: 07/10/85
PROGRAM PHASE:
ENTERED DATE: 07/12/85

DESCRIPTION:
MONITOR REMAINING SPACE ON MASS MEMORY DEVICES. DELETE OLD DATA
(IF ALLOWED). ALERT OPERATOR IF NEARING WARNING OR CRITICAL
UTILIZATION. ALLOCATE SPACE FOR NEW USERS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 4 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.3P NAME: MASS MEMORY RESOURCE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	5.1.1.6P	D	100000.000	0.100
O	Y	E	OPERATOR	D	100000.000	1.000
I	N	D	CORESTAT	C	3600.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.5P NAME: DEVICE MANAGEMENT

PREPARED BY: KILLINGBECK

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/12/85

DESCRIPTION:

CONTROL & MONITOR ONBOARD DATA BASE MGT DEVICES (DATA BASE PROC-
ESSORS, FILE MGT PROCESSORS, MASS STORAGE & ARCHIVAL STORAGE UNITS.
PERFORM TURN-ON, TURN-OFF, STATUS MONITOR.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N

NUMBER: 0

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.5P NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION TYPE	CODE	INPUT/OUTPUT CODE	RATE(SEC)	DATA AMOUNT (KBYTES)
I	N	D	CORESTAT	C	10.000	0.100
O	N	E	OPERATOR	D	100000.000	0.100
I	Y	F	5.1.1.6P	D	100000.000	0.100
I	Y	E	OPERATOR	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.6P NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: KILLINGBECK

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/12/85

DESCRIPTION:

ACCEPT GROUND COMMANDS FOR CONFIGURATION MANAGEMENT OF THE
DATA BASE MANAGEMENT SYSTEM. ROUTE THE COMMAND TO THE APPROPRIATE
SUBFUNCTION (OTHER 5.1.1.X FUNCTIONS) FOR IMPLEMENTATION

FUNCTION SOURCES: -

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.1.6P NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	F	5.1.1.5P	D	100000.000	0.100
O	Y	F	5.1.1.3P	D	100000.000	0.100
I	Y	E	OPERATOR	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.1P NAME: LOAD SCHEDULING

PREPARED BY: KILLINGBECK

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/12/85

DESCRIPTION:

PROJECT NEEDS FOR ONBOARD DATA MGT RESOURCES BASED ON MASTER PLAN,
 SHORT TERM SCHED, ETC. IDENTIFY APPROPRIATE UNITS FOR EXECUTION
 (PROCESSOR TYPES & LOCATIONS, MASS STORE DEVICES, DISPLAYS).
 MONITOR ACTUAL USE VERSUS PLAN & SAFE SYST OR ALERT OPERATOR.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y

NUMBER: 1

REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.1P NAME: LOAD SCHEDULING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	E	TDRSS	D	30000.000	1.000
I	Y	D	MSTRPLAN	D	30000.000	1.000
I	Y	D	OPEVENTS	D	30000.000	1.000
O	Y	E	OPERATOR	D	30000.000	2.000
I	Y	E	COMM I/F	D	30000.000	1.000
I	Y	D	SHORTSCH	D	30000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.2P NAME: SYSTEM EXECUTIVE

PREPARED BY: KILLINGBECK

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/12/85

DESCRIPTION:

SUPPLY STANDARD OPERATING SYSTEM FUNCTIONS (SCHEDULE PROCESSES FOR MULTITASKING, PROVIDE I/O, TIME SEVENT SEQUENCING OF TASKS...).
SUPPLY NETWORK OPERATING SYSTEM FOR PROCESS-TO-PROCESS MESSAGES (LOCATE PROCESS, ROUTE MESSAGE, ALERT RECEIVER, ETC.).

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2

IMPACT: 2

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS:

NOTE 1: THE SYS EXEC PER SE HAS FEW INPUTS OR OUTPUTS. NEARLY ALL OTHER PROCESS' COMM USE THE SYST EXEC AS A "HIDDEN" INTER-MEDIARY. INPUTS & OUTPUTS ARE THEREFORE ABOUT EQUAL TO THE SUM OF ALL OTHER FUNCTIONS INPUTS & OUTPUTS.

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.2P NAME: SYSTEM EXECUTIVE

		SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT
TYPE	TRIGGER	TYPE	CODE	CODE	RATE(SEC)	(KBYTES)
					0.000	0.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.3P NAME: INITIALIZATION CONFIGURATION CONTROL
PREPARED BY: KILLINGBECK REVISION DATE: 07/10/85
REVISION: 0 PROGRAM PHASE:
FUNCTION TYPE: C ENTERED DATE: 07/12/85

DESCRIPTION:

INITIAL PROGRAM START-UP OF FLIGHT SYSTEM. OPERATOR/AUTOMATIC
SPECIFICATION OF BASIC CONFIGURATION. LOAD INTERFACE DEVICES WITH
NETWORK OPERATING SYSTEM. LOAD PROCESSORS WITH FUNDAMENTAL
PROGRAMS (OPERATING SYSTEM, MINIMAL OPERATOR INTERFACE).

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 2 IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N NUMBER: 0
REQUIREMENTS:

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.3P NAME: INITIALIZATION CONFIGURATION CONTROL

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	5.1.2.8P	D	100000.000	0.100
O	Y	E	CORESIST	D	100000.000	100.000
O	Y	F	5.1.2.4P	D	10000.000	0.100
I	Y	E	CORE OPR	D	100000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.4P NAME: CONFIGURE DATA PROCESSING EQUIPMENT

PREPARED BY: KILLINGBECK

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/12/85

DESCRIPTION:

ASSIGN PROCESSING TASKS TO APPROPRIATE UNITS OF DATA PROCESSING EQUIPMENT. UTILIZE DEFAULT ALLOCATION TABLES, AUGMENTED WITH MANUAL INPUTS & DYNAMIC LOADING ESTIMATES. REASSIGN TASKS FOLLOWING FAILURE OF AN EXISTING UNIT. ALLOCATE MASS STORAGE & WORKSTATIONS TO TASK.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 3

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.4P NAME: CONFIGURE DATA PROCESSING EQUIPMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	CORESIST	D	10000.000	100.000
I	Y	F	5.1.2.8P	D	100000.000	0.100
I	Y	D	CORESTAT	D	10000.000	1.000
O	Y	D	CORESTAT	D	10000.000	0.100
I	Y	F	5.1.2.3P	D	10000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.5P NAME: FACILITY STATUS

PREPARED BY: KILLINGBECK

REVISION: 0

FUNCTION TYPE: C

REVISED BY:

REVISION DATE: 07/10/85

PROGRAM PHASE:

ENTERED DATE: 07/12/85

DESCRIPTION:

MONITOR HEALTH, POWER UTILIZATION, MEMORY USAGE, AND COMPUTATIONAL
USAGE OF ONBOARD DATA PROCESSING EQUIPMENT. MAINTAIN RECORDS OF
STATUS OF AVAILABLE SPARES.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.5P NAME: FACILITY STATUS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	N	D	FAC STAT	C	1.000	1.000
I	Y	E	CORE OPR	D	10000.000	0.100
I	N	D	FAC STAT	C	1.000	1.000
O	Y	E	CORE OPR	C	1.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.6P NAME: RECONFIGURE/DISCONNECT PAYLOADS & CORE SYSTEMS
 PREPARED BY: KILLINGBECK
 REVISION: 0
 FUNCTION TYPE: C

REVISED BY:
 REVISION DATE: 07/10/85
 PROGRAM PHASE:
 ENTERED DATE: 07/12/85

DESCRIPTION:

MONITOR SUBSYST UTILIZATION OF RESOURCES (POWER, COOLING, BANDWIDTH, MEMORY, MASS STORAGE, ETC.). COMPARE AGAINST AUTH PROFILES. ALERT USER/OPERATOR (ABOVE LIMITS, TOTAL SYSTEM NOT AT CRITICAL LEVEL), OR ABORT LOWER CRITICALITY USERS (SYST AT CRITICAL LEVEL).

FUNCTION SOURCES: C-4-2.2.3.F; C-4-3.6.B;
 C-4-2.2.3.E; 7.3.3

CRITICALITY - RECOVERY TIME: 1 IMPACT: 3

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: Y NUMBER: 1
 REQUIREMENTS:

DOC	PARAGRAPH NO.	DESCRIPTION
RFP	C-4-2.2.3.F	RECONFIGURATION OF ELECTRICAL SOURCES, LOADS, AND BUSES
RFP	C-4-3.6.B	PAYLOAD FACILITIES MGMT
RFP	C-4-2.2.3.e	PROTECT SYS AND CUSTOMERS AGAINST OVERLOADS
CRSS	7.3.3	MONITOR, PROTECT DATA SYSTEM INTERFACES
CRSS	5.4.5	SUPPORT PRIVACY OF CUSTOMERS DIGITAL DATA

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.6P NAME: RECONFIGURE/DISCONNECT PAYLOADS & CORE SYSTEMS

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	5.1.2.8P	D	100000.000	0.100
I	N	D	CORESTAT	C	1.000	5.000
I	Y	E	CORE OPR	D	10000.000	0.100
O	Y	F	4.2.1.2P	D	100000.000	1.000
O	N	D	CORESTAT	D	100000.000	0.100
O	Y	F	5.1.2.8P	D	100000.000	1.000

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.7P NAME: DEVICE MANAGEMENT

PREPARED BY: KILLINGBECK

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/12/85

DESCRIPTION:

COMMAND SELF-TEST OR OTHER DIAGNOSTICS TO BE PERFORMED BY ON-BOARD DATA SYSTEM DEVICES. USE RESULTS, OR CROSS-COMPARISON TO SIMILAR DEVICES TO IDENTIFY SUSPECT OR FAULTY UNITS. TURN DEVICES ON OR OFF.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 3

IMPACT: 4

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.7P NAME: DEVICE MANAGEMENT

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
O	Y	E	CORESIST	D	100000.000	0.100
I	N	D	CORESTAT	D	10000.000	0.100
I	Y	F	5.1.2.8P	D	100000.000	0.100
I	Y	E	CORE OPR	D	10000.000	0.100
O	N	D	CORESTAT	D	10000.000	0.100

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.8P NAME: COMMAND INTERFACE PROCESSING

PREPARED BY: KILLINGBECK

REVISED BY:

REVISION: 0

REVISION DATE: 07/10/85

FUNCTION TYPE: C

PROGRAM PHASE:

ENTERED DATE: 07/12/85

DESCRIPTION:

ACCEPT GROUND COMMANDS FOR CONFIGURATION MANAGEMENT OF
FLIGHT DATA SYSTEMS. EXECUTE THE COMMAND BY USE OF OTHER 5.1.2.X
FUNCTIONS.

FUNCTION SOURCES:

CRITICALITY - RECOVERY TIME: 1

IMPACT: 5

DATA PRIVACY CODE: S

ALARMS/ANNUNCIATIONS - REQUIRED: N
REQUIREMENTS:

NUMBER: 0

DOC PARAGRAPH NO. DESCRIPTION

ADDITIONAL REQUIREMENTS: (none)

20-JUL-1985

SSDS FUNCTIONAL DATA SHEET

FUNCTION NO: 5.1.2.8P NAME: COMMAND INTERFACE PROCESSING

TYPE	TRIGGER	SOURCE/DESTINATION		INPUT/OUTPUT		DATA AMOUNT (KBYTES)
		TYPE	CODE	CODE	RATE(SEC)	
I	Y	F	5.1.2.6P	D	100000.000	1.000
O	Y	F	5.1.2.4P	D	100000.000	0.100
O	Y	F	5.1.2.7P	D	100000.000	0.100
O	Y	F	5.1.2.3P	D	100000.000	0.100
I	N	D	CORESTAT	D	10000.000	1.000
I	Y	E	CORE OPR	D	10000.000	0.100
O	Y	F	5.1.2.6P	D	100000.000	0.100

Appendix A-10
Source Documents, Paragraph Numbers
to Requirement Numbers Cross Index

PRECEDING PAGE BLANK NOT FILMED

SOURCE DOCUMENT, PARAGRAPH NUMBER TO
REQUIREMENT NUMBER CROSS INDEX

DOCUMENT	PARAGRAPH NUMBER	REQUIREMENT NUMBER
=====	=====	=====
RFP	C-2-3.1.1	1001
RFP	C-2-3.1.1	1002
RFP	C-2-3.1.2	1003
RFP	C-2-3.1.2	1004
RFP	C-2-3.1.3	1005
RFP	C-2-3.1.3	1006
RFP	C-2-3.1.3	1007
RFP	C-2-3.1.3	1127
RFP	C-2-3.1.3	1209
RFP	C-2-3.1.5	1008
RFP	C-2-3.1.6	1009
RFP	C-2-3.1.6	1010
RFP	C-2-3.1.7	1011
RFP	C-2-3.1.7	1012
RFP	C-3-2.1.C	1013
RFP	C-3-2.1.I	1014
RFP	C-3-2.1f	1202
RFP	C-3-2.2.A	1015
RFP	C-3-2.2c	1187
RFP	C-3-2.3.A	1016
RFP	C-3-2.3.B	1017
RFP	C-3-2.3.C	1208
RFP	C-3-2.3.D	1018
RFP	C-3-2.4.C	1019
RFP	C-3-2.4.C	1020
RFP	C-3-2.4.D	1021
RFP	C-3-2.4.E	1022
RFP	C-3-2.4.F	1023
RFP	C-3-2.4.G	1024
RFP	C-3-2.4.H	1025
RFP	C-3-2.4.J	1026
RFP	C-3-2.5.A	1205
RFP	C-3-2.5.B	1027
RFP	C-3-2.5.C	1028
RFP	C-3-2.5.D	1029
RFP	C-3-2.5.D	1206
RFP	C-3-2.6.A	1030
RFP	C-3-2.6.B	1031
RFP	C-3-3.1.B	1032
RFP	C-3-3.1.D	1033
RFP	C-3-3.1.E	1207
RFP	C-3-3.1.G	1034
RFP	C-3-3.1.I	1035
RFP	C-3-3.2.C	1036
RFP	C-3-3.2.D	1037
RFP	C-3-3.2.G	1038
RFP	C-3-3.2.H	1039
RFP	C-3-3.2.I	1040
RFP	C-3-3.2.K	1041

SOURCE DOCUMENT, PARAGRAPH NUMBER TO
REQUIREMENT NUMBER CROSS INDEX

DOCUMENT	PARAGRAPH NUMBER	REQUIREMENT NUMBER
=====		
RFP	C-3-3.2g	1201
RFP	C-3-3.3b	1188
RFP	C-3-3.4.A	1042
RFP	C-4-1.2	1131
RFP	C-4-1.2	1132
RFP	C-4-1.2.F	1133
RFP	C-4-1.2.G	1134
RFP	C-4-2.1.10	1146
RFP	C-4-2.1.10.1	1147
RFP	C-4-2.1.10.1	1148
RFP	C-4-2.1.10.2.B	1050
RFP	C-4-2.1.10.2a	1149
RFP	C-4-2.1.10.3	1150
RFP	C-4-2.1.10.4	1151
RFP	C-4-2.1.11	1152
RFP	C-4-2.1.11.1	1051
RFP	C-4-2.1.11.2.A1	1052
RFP	C-4-2.1.11.2.C	1053
RFP	C-4-2.1.11.2.E	1128
RFP	C-4-2.1.11.2.L	1130
RFP	C-4-2.1.11.4.a	1153
RFP	C-4-2.1.11.4.b	1154
RFP	C-4-2.1.14	1054
RFP	C-4-2.1.14.D	1055
RFP	C-4-2.1.2.1	1045
RFP	C-4-2.1.2.4	1135
RFP	C-4-2.1.2.4.A	1043
RFP	C-4-2.1.2.4.A	1136
RFP	C-4-2.1.2.4.B	1044
RFP	C-4-2.1.2.4.B	1046
RFP	C-4-2.1.3.3	1047
RFP	C-4-2.1.4.1	1137
RFP	C-4-2.1.4.2	1048
RFP	C-4-2.1.5	1138
RFP	C-4-2.1.6	1139
RFP	C-4-2.1.7	1140
RFP	C-4-2.1.8	1141
RFP	C-4-2.1.9.C	1049
RFP	C-4-2.1.9a	1142
RFP	C-4-2.1.9b	1143
RFP	C-4-2.1.9d	1144
RFP	C-4-2.1.9h	1145
RFP	C-4-2.2.10.2.G5	1177
RFP	C-4-2.2.10.2f	1203
RFP	C-4-2.2.10.2g13	1193
RFP	C-4-2.2.10.2g5	1190
RFP	C-4-2.2.10.2g7	1192
RFP	C-4-2.2.10.2h	1204
RFP	C-4-2.2.10g9	1191

SOURCE DOCUMENT, PARAGRAPH NUMBER TO
REQUIREMENT NUMBER CROSS INDEX

DOCUMENT	PARAGRAPH NUMBER	REQUIREMENT NUMBER
=====		
RFP	C-4-2.2.11.1e	1178
RFP	C-4-2.2.11.1e	1178
RFP	C-4-2.2.11.2A6	1179
RFP	C-4-2.2.11.2a6	1195
RFP	C-4-2.2.11.2a7	1196
RFP	C-4-2.2.12.2.H	1118
RFP	C-4-2.2.2.5.e	1129
RFP	C-4-2.2.3.D	1056
RFP	C-4-2.2.3.e	1155
RFP	C-4-2.2.3.F	1057
RFP	C-4-2.2.4.1.B	1058
RFP	C-4-2.2.5.1a	1156
RFP	C-4-2.2.5.1b	1157
RFP	C-4-2.2.5.1c	1158
RFP	C-4-2.2.5.2.A	1059
RFP	C-4-2.2.5.2b	1159
RFP	C-4-2.2.5.2c	1160
RFP	C-4-2.2.5.3.A	1060
RFP	C-4-2.2.5.3.B	1061
RFP	C-4-2.2.5.3.E	1062
RFP	C-4-2.2.5.3.E	1063
RFP	C-4-2.2.5.3.F	1064
RFP	C-4-2.2.5.3.H	1065
RFP	C-4-2.2.5.3.I	1066
RFP	C-4-2.2.5.3.J	1067
RFP	C-4-2.2.5.3.K	1068
RFP	C-4-2.2.5.3.L	1069
RFP	C-4-2.2.5.3.M	1070
RFP	C-4-2.2.5.3.O	1071
RFP	C-4-2.2.5.3C1	1161
RFP	C-4-2.2.5.3C4	1162
RFP	C-4-2.2.5.3d	1163
RFP	C-4-2.2.5.3g	1164
RFP	C-4-2.2.5.3m	1165
RFP	C-4-2.2.5.3n	1166
RFP	C-4-2.2.6.2.A	1072
RFP	C-4-2.2.6.2.A	1073
RFP	C-4-2.2.6.2.B	1074
RFP	C-4-2.2.6.2.B.1	1075
RFP	C-4-2.2.6.2.C	1079
RFP	C-4-2.2.6.2.E	1080
RFP	C-4-2.2.6.2.F	1081
RFP	C-4-2.2.6.2.G	1082
RFP	C-4-2.2.6.2.H	1083
RFP	C-4-2.2.6.2.I	1084
RFP	C-4-2.2.6.2.J	1085
RFP	C-4-2.2.6.2.K	1086
RFP	C-4-2.2.6.2b2	1194
RFP	C-4-2.2.6.2g	1167

SOURCE DOCUMENT, PARAGRAPH NUMBER TO
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DOCUMENT	PARAGRAPH NUMBER	REQUIREMENT NUMBER
=====	=====	=====
RFP	C-4-2.2.6.2g	1168
RFP	C-4-2.2.6.2g	1169
RFP	C-4-2.2.6.2j	1170
RFP	C-4-2.2.7.1.A	1087
RFP	C-4-2.2.7.1.A	1088
RFP	C-4-2.2.7.1.B	1089
RFP	C-4-2.2.7.1.C	1090
RFP	C-4-2.2.7.1.D	1091
RFP	C-4-2.2.7.1.E	1092
RFP	C-4-2.2.7.1.F	1093
RFP	C-4-2.2.7.1.G	1094
RFP	C-4-2.2.7.1.H	1095
RFP	C-4-2.2.7.1.I	1096
RFP	C-4-2.2.7.1.J	1097
RFP	C-4-2.2.7.1.L	1098
RFP	C-4-2.2.7.1.M	1099
RFP	C-4-2.2.7.1.N	1077
RFP	C-4-2.2.7.1.O	1076
RFP	C-4-2.2.7.1.P	1100
RFP	C-4-2.2.7.1.Q	1101
RFP	C-4-2.2.7.1.R	1102
RFP	C-4-2.2.7.1.S	1103
RFP	C-4-2.2.7.1.T	1104
RFP	C-4-2.2.7.2b	1171
RFP	C-4-2.2.7.2b	1172
RFP	C-4-2.2.7.2b	1173
RFP	C-4-2.2.7.2b	1174
RFP	C-4-2.2.7.2d	1175
RFP	C-4-2.2.7.2e	1176
RFP	C-4-2.2.8	1105
RFP	C-4-2.2.9.1.A	1106
RFP	C-4-2.2.9.1.A	1107
RFP	C-4-2.2.9.1.B	1108
RFP	C-4-2.2.9.1.D	1109
RFP	C-4-2.2.9.1.F	1110
RFP	C-4-2.2.9.2.B.1	1197
RFP	C-4-2.2.9.2b2	1200
RFP	C-4-3.10	1126
RFP	C-4-3.10.1.b	1184
RFP	C-4-3.10.1b	1198
RFP	C-4-3.10.1a	1185
RFP	C-4-3.10.1c	1186
RFP	C-4-3.10.1c	1189
RFP	C-4-3.10.1C	1199
RFP	C-4-3.2.1.A	1119
RFP	C-4-3.2.3	1120
RFP	C-4-3.2.4	1121
RFP	C-4-3.3.1a	1180
RFP	C-4-3.3.3	1122

SOURCE DOCUMENT, PARAGRAPH NUMBER TO
 REQUIREMENT NUMBER CROSS INDEX

DOCUMENT	PARAGRAPH NUMBER	REQUIREMENT NUMBER
=====	=====	=====
RFP	C-4-3.3.4	1123
RFP	C-4-3.4.1	1181
RFP	C-4-3.5.1b	1182
RFP	C-4-3.5.4	1124
RFP	C-4-3.6.B	1125
RFP	C-4-3.8.1.b	1183
RFP	C4-2.2.10.2.G	1114
RFP	C4-2.2.10.2.G.2	1115
RFP	C4-2.2.11.2.B.2	1116
RFP	C4-2.2.11.2.B.2	1117
RFP	C4.2.2.10.2.D.2	1113
RFP	C422.10.1J.1.A	1111
RFP	C422.10.1J.1.C	1112

SOURCE DOCUMENT, PARAGRAPH NUMBER TO
REQUIREMENT NUMBER CROSS INDEX

DOCUMENT	PARAGRAPH NUMBER	REQUIREMENT NUMBER
=====		
CRSS	0.3	2001
CRSS	0.3	2002
CRSS	0.3	2003
CRSS	1.1.1	2100
CRSS	1.1.10	2108
CRSS	1.1.2	2101
CRSS	1.1.3	2102
CRSS	1.1.4	2004
CRSS	1.1.4	2103
CRSS	1.1.5	2104
CRSS	1.1.6	2105
CRSS	1.1.7	2106
CRSS	1.1.8	2107
CRSS	1.1.9	2005
CRSS	1.2.1	2109
CRSS	1.2.2	2110
CRSS	1.2.3	2111
CRSS	1.2.4	2112
CRSS	2.1.1	2113
CRSS	2.1.1.1	2114
CRSS	2.1.2	2115
CRSS	2.1.2.1	2116
CRSS	2.2.1	2117
CRSS	2.2.2	2118
CRSS	2.2.2.1	2119
CRSS	2.2.3	2120
CRSS	2.2.3.1	2121
CRSS	2.2.3.2	2122
CRSS	2.2.3.3	2123
CRSS	2.2.3.4	2124
CRSS	2.2.3.5	2125
CRSS	2.2.4	2126
CRSS	3.1.1	2006
CRSS	3.1.1	2007
CRSS	3.1.1	2089
CRSS	3.1.2	2008
CRSS	3.1.2.1	2127
CRSS	3.1.4	2128
CRSS	3.1.5	2129
CRSS	3.1.6	2010
CRSS	3.1.7	2011
CRSS	3.2.1	2130
CRSS	3.2.2	2012
CRSS	3.2.3	2013
CRSS	3.3.1	2014
CRSS	3.3.2	2131
CRSS	3.3.3	2015
CRSS	3.3.3	2092
CRSS	3.3.4	2132

SOURCE DOCUMENT, PARAGRAPH NUMBER TO
REQUIREMENT NUMBER CROSS INDEX

DOCUMENT	PARAGRAPH NUMBER	REQUIREMENT NUMBER
=====	=====	=====
CRSS	3.3.5	2133
CRSS	3.4.1	2016
CRSS	3.4.1.1	2090
CRSS	3.4.1.2	2087
CRSS	3.4.1.3	2091
CRSS	3.4.1.4	2088
CRSS	3.4.1.5	2017
CRSS	3.4.1.6	2018
CRSS	3.4.1.7	2019
CRSS	3.4.1.8	2134
CRSS	3.4.1.9	2135
CRSS	3.4.2	2097
CRSS	3.4.3	2136
CRSS	3.4.4	2137
CRSS	4.1.1	2021
CRSS	4.1.1.1	2022
CRSS	4.1.2	2023
CRSS	4.1.3	2024
CRSS	4.1.4	2025
CRSS	4.1.5	2138
CRSS	4.1.6	2139
CRSS	4.2.1	2026
CRSS	4.2.1	2093
CRSS	4.2.1	2182
CRSS	4.2.1.1	2140
CRSS	4.2.1.2	2141
CRSS	4.2.1.3	2142
CRSS	4.2.1.3.1	2143
CRSS	4.2.1.3.2	2186
CRSS	5.1.1	2027
CRSS	5.1.2	2028
CRSS	5.1.3	2144
CRSS	5.1.4	2029
CRSS	5.1.4	2145
CRSS	5.1.5	2146
CRSS	5.1.6	2147
CRSS	5.1.7	2148
CRSS	5.1.8	2149
CRSS	5.1.8	2185
CRSS	5.1.9	2030
CRSS	5.2.1	2150
CRSS	5.2.10	2020
CRSS	5.2.2	2151
CRSS	5.2.3	2031
CRSS	5.2.4	2152
CRSS	5.2.5	2153
CRSS	5.2.6	2094
CRSS	5.2.7	2154
CRSS	5.2.8	2155

SOURCE DOCUMENT, PARAGRAPH NUMBER TO
REQUIREMENT NUMBER CROSS INDEX

DOCUMENT	PARAGRAPH NUMBER	REQUIREMENT NUMBER
=====	=====	=====
CRSS	5.2.9	2156
CRSS	5.3.1	2157
CRSS	5.3.2	2158
CRSS	5.3.3	2032
CRSS	5.3.4	2159
CRSS	5.3.5	2160
CRSS	5.4.1	2161
CRSS	5.4.2	2162
CRSS	5.4.3	2163
CRSS	5.4.4	2164
CRSS	5.4.5	2165
CRSS	6.1.1	2033
CRSS	6.1.2	2166
CRSS	6.1.3	2167
CRSS	6.1.3.1	2034
CRSS	6.1.3.1	2168
CRSS	6.1.4	2035
CRSS	6.1.5	2169
CRSS	6.1.5.1	2170
CRSS	6.1.5.2.1	2171
CRSS	6.1.5.2.2	2172
CRSS	6.1.5.2.3	2096
CRSS	6.1.5.2.4	2173
CRSS	6.1.6	2036
CRSS	6.1.6.2	2037
CRSS	6.1.6.3	2038
CRSS	6.1.6.4	2173
CRSS	6.1.7	2039
CRSS	6.2.1	2040
CRSS	6.2.1.2	2041
CRSS	6.2.1.3	2174
CRSS	6.2.1.4	2042
CRSS	6.2.1.4	2183
CRSS	6.2.1.4.1	2043
CRSS	6.2.1.5	2044
CRSS	6.3.1	2045
CRSS	6.3.1.1	2046
CRSS	6.3.2	2047
CRSS	6.4.1	2175
CRSS	6.4.1.2	2177
CRSS	6.4.2.1	2176
CRSS	7.1.1	2048
CRSS	7.1.1	2049
CRSS	7.1.1	2050
CRSS	7.1.1	2051
CRSS	7.1.1	2099
CRSS	7.1.2	2052
CRSS	7.1.2	2095
CRSS	7.1.3	2053

SOURCE DOCUMENT, PARAGRAPH NUMBER TO
REQUIREMENT NUMBER CROSS INDEX

DOCUMENT	PARAGRAPH NUMBER	REQUIREMENT NUMBER
=====	=====	=====
CRSS	7.1.4	2054
CRSS	7.2.1	2055
CRSS	7.2.2	2056
CRSS	7.2.2.1	2057
CRSS	7.2.3	2178
CRSS	7.2.4	2059
CRSS	7.2.5	2060
CRSS	7.2.6	2061
CRSS	7.3.1	2062
CRSS	7.3.2	2063
CRSS	7.3.3	2064
CRSS	7.3.4	2065
CRSS	7.3.4	2186
CRSS	7.3.4.1	2066
CRSS	7.3.4.1	2179
CRSS	7.4.1	2067
CRSS	7.4.2	2068
CRSS	7.4.3	2069
CRSS	7.4.3.1	2070
CRSS	7.4.4	2071
CRSS	8.0	2072
CRSS	8.1.1	2180
CRSS	8.1.2	2074
CRSS	8.2.1	2073
CRSS	8.2.1	2075
CRSS	8.2.1.1	2076
CRSS	8.2.1.2	2077
CRSS	8.2.1.3	2078
CRSS	8.2.1.4	2079
CRSS	8.2.1.5	2181
CRSS	8.2.2	2080
CRSS	8.3.1	2081
CRSS	8.3.2	2082
CRSS	8.4.1	2083
CRSS	8.4.2	2084
CRSS	8.5.1	2085
CRSS	8.5.1	2184
CRSS	8.6.1	2086

SOURCE DOCUMENT, PARAGRAPH NUMBER TO
REQUIREMENT NUMBER CROSS INDEX

DOCUMENT	PARAGRAPH NUMBER	REQUIREMENT NUMBER
=====		
MRWG	COMM1010(11)	3048
MRWG	COMM1014(14)	3031
MRWG	COMM1014(30)	3013
MRWG	COMM1105(37)	3006
MRWG	COMM1110(38)	3035
MRWG	COMM1117(37)	3044
MRWG	COMM1201(75)	3007
MRWG	COMM1204(36)	3045
MRWG	COMM1206(46)	3039
MRWG	COMM1213(32)	3041
MRWG	COMM1213(36)	3029
MRWG	COMM1304(11)	3034
MRWG	COMM1304(47)	3009
MRWG	COMM1304(49)	3051
MRWG	COMM1309(11)	3046
MRWG	COMM1309(90)	3018
MRWG	COMM1312(20)	3036
MRWG	COMM2012(44)	3017
MRWG	SAAX0001(62)	3014
MRWG	SAAX0004(12)	3032
MRWG	SAAX0005(44)	3042
MRWG	SAAX0008(61)	3022
MRWG	SAAX0009(52)	3002
MRWG	SAAX0011(78)	3038
MRWG	SAAX0011(95)	3020
MRWG	SAAX0012(35)	3010
MRWG	SAAX0012(40)	3053
MRWG	SAAX0013(49)	3052
MRWG	SAAX0017(81)	3015
MRWG	SAAX0019(59)	3043
MRWG	SAAX0020(49)	3049
MRWG	SAAX006(13)	3003
MRWG	SAAX0110(35)	3055
MRWG	SAAX0201(74)	3001
MRWG	SAAX0207(3)	3019
MRWG	SAAX0207(4)	3033
MRWG	SAAX0301(5)	3024
MRWG	SAAX0301(8)	3026
MRWG	SAAX0302(24)	3030
MRWG	SAAX0303(3)	3023
MRWG	SAAX0305(32)	3040
MRWG	SAAX0307(28)	3011
MRWG	SAAX0403(28)	3012
MRWG	TDMX2020(52)	3021
MRWG	TDMX2060(45)	3016
MRWG	TDMX2060(46)	3027
MRWG	TDMX2070(42)	3037
MRWG	TDMX2120(12)	3008
MRWG	TDMX2120(49)	3050

SOURCE DOCUMENT, PARAGRAPH NUMBER TO
 REQUIREMENT NUMBER CROSS INDEX

DOCUMENT	PARAGRAPH NUMBER	REQUIREMENT NUMBER
=====		
MRWG	TDMX2150(51)	3056
MRWG	TDMX2220(54)	3054
MRWG	TDMX2260(46)	3005
MRWG	TDMX2410(22)	3004
MRWG	TDMX2530(8)	3025
MRWG	TDMX2560(37)	3028
MRWG	TDMX2570(11)	3047

Appendix A-11
SSDS Task 1 Report - Comments
Action/Status Disposition Log

SSDS TASK 1 REPORT - COMMENT ACTION/STATUS DISPOSITION LOG

NO.	ORIGIN	PROBLEM AREA	RESPONSE PLAN ITEM	DISPOSITION			
				TEXT CHANGE	CLARI- FICATION	DEFER TO OTHER TASKS	OTHER
1	Erickson/JSC	Automation	1e	X			
2	Dalke/JSC	Lack of Detail	8a,8b	A5,A9			
3	Seyl/JSC	Buildup/STS	7	X			
4	Kapell/TCD	CCSDS Stds.	1e	X			
5	Barry/JSC	Des. Reqs.	8a,8b		X	TASK 4	
6	Barry/JSC	Wording	1d	A-4			
7	Barry/JSC	Missing Funcs.	8a,8b	X	X		
8	Mallary/JSC	GPS Backup	1d	X			
9	Kapell/TCD	EVA Comm.	1d	X			
10	Kapell/TCD	TDRS/COP	4a	X			
11	Mallary/JSC	COP/FF	1d	X			
12	Dumis/DA6	Training	1d	X			
13	Dumis/DA6	Automation	1d	X			
14	Dumis/DA6	SW Changes	1d	X			
15	Dumis/DA6	Plat. Services	1d	X			
16	Dumis/DA6	Logistics	1d	X	X		
17	Dumis/DA6	Automation	1a		X		
18	Barry/JSC	Methodology	1d	X			
19	Barry/JSC	Data Sheets	1d	A-7			
20	Yeo/JSC	Nav.	1a		X		
21	Yeo/JSC	Nav.	1d	X			
22	Yeo/JSC	ACS	1d	X			
23	Yeo/JSC	Nav.	1d	X			

SSDS TASK 1 REPORT - COMMENT ACTION/STATUS DISPOSITION LOG

NO.	ORIGIN	PROBLEM AREA	RESPONSE PLAN ITEM	DISPOSITION			
				TEXT CHANGE	CLARI- FICATION	DEFER TO OTHER TASKS	OTHER
24	Yeo/JSC	ACS	1d	X			
25	Clark/LEMSCO	Nav.	1d	X			
26	Clark/LEMSCO	Nav./ACS	1d	X			
27	Clark/LEMSCO	Nav.	1d	X			
28	Mosebach	Nav.	1d	X	X		
29	Clarke	Nav.	1d	X			
30	Thomas/JSC	Nav.	1d	X			
31	Thomas/JSC	Nav./RCS	1d	X			
32	Glandorf	Pointing	1d	X			
33	Mosebach	Pointing	1d	X			
34	Mosebach	Commands	1d	A-9			
35	Mosebach	RMS	1d	X			
36	Mosebach	Docking	1d	X			
37	Thomas/JSC	Wording	1d	X			
38	Hackler/JSC	Power	1a		X		
39	Kapell/TCD	Comm.	1d	X			
40	Kapell/TCD	TDRS	1a	X		TASK 4	RID 168
41	Seyl/JSC	Data Rates	1a			TASK 4	
42	Thomas/JSC	Data Sheets	8a,8b	A4,A9			
43	Thomas/JSC	RFP Reqs.	1d	A-5			
44	Mosebach	Tracking	1d	X			
45	Tagler/GSFC	Fail-Safe/Op	1d	A-9			
46	Tagler/GSFC	Modularity	1e,7	X			

SSDS TASK 1 REPORT - COMMENT ACTION/STATUS DISPOSITION LOG

NO.	ORIGIN	PROBLEM AREA	RESPONSE PLAN ITEM	DISPOSITION			
				TEXT CHANGE	CLARI- FICATION	DEFER TO OTHER TASKS	OTHER
47	Tagler/GSFC	Tech. Insert.	1d	X			
48	Maxwell/GSFC	SSDS I/F	1d.2b	X			
49	Vette/GSFC	Wording	1a		X		
50	Tagler/GSFC	Wording	1d	X			
51	Tagler/GSFC	Comm.	1a		X		
52	Tagler/GSFC	TMIS	1d	X			
53	Tagler/GSFC	Std. Services	1d	X	X		
54	Tagler/GSFC	Security	1a		X		
55	Tagler/GSFC	DHC	1d	X		TASK. 4	
56	Tagler/GSFC	Wording	1d	X			
57	Tagler/GSFC	SSIS/SSDS	1a		X		
58	Tagler/GSFC	PE's	1d	X			
59	Gitelman	Design Drivers	1d	X			
60	Gitelman	Wording	1d	X			
61	Tagler/GSFC	POP	1a,1d	X	X		
62	Tagler/GSFC	DSN Data	1d	X	X		
63	Tagler/GSFC	DHC	1a	X		TASKS 3,4	
64	Tagler/GSFC	PCC, TMIS	1d,1a	X		TASK 4	
65	Westcott	Audio/Video	1d	X			
66	Tagler/GSFC	Definition	1d	X			
67	Gitelman	SSDS/SSIS	1a		X		
68	Tagler/GSFC	SSDS/SSIS	1d	X	X		
69	Gitelman	SSDS/SSIS	4a-d	X	X		

SSDS TASK 1 REPORT - COMMENT ACTION/STATUS DISPOSITION LOG

NO.	ORIGIN	PROBLEM AREA	RESPONSE PLAN ITEM	DISPOSITION			
				TEXT CHANGE	CLARI- FICATION	DEFER TO OTHER TASKS	OTHER
70	Tagler/GSFC	SSDS/SSIS	1a,1d	X	X		
71	Westcott	Video	1a			TASK 4	
72	Westcott	Audio	1a			TASK 4	
73	Westcott	Data Comm.	1a			TASK 4	
74	Gitelman	TMIS	1a,1d	X	X		
75	Tagler/GSFC	DFD's	1a,1d	X	X		
76	Tagler/GSFC	Comm.	1a		X		
77	Vette/GSFC	Wording	1d	X			
78	Tagler/GSFC	Cmd. Seg.	1a,1d	X	X		
79	Tagler/GSFC	Cmd. Mgt.	1d	X			
80	Tagler/GSFC	Cmd. Mgt.	1d	X			
81	Tagler/GSFC	Cmd. Mgt.	1d	X			
82	Tagler/GSFC	Cmd. Mgt.	1a,1d	X	X		
83	Vette/GSFC	Downlink	1a	X			
84	Tagler/GSFC	Definition	1a,1d	X	X		
85	Westcott	POSP	1a,4d		X		RID 69
86	Shenk/GSFC	Cust. I/F	1d	X			
87	Westcott	Training	1d	X			
88	Westcott	Testing	1d	X			
89	Shenk/GSFC	Wording	1d	X			
90	Gitelman	Wording	1d	X			
91	Gitelman	Wording	1d	X			
92	Gitelman	Level 0 Data	1d	X			

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NO.	ORIGIN	PROBLEM AREA	RESPONSE PLAN ITEM	DISPOSITION			
				TEXT CHANGE	CLARI- FICATION	DEFER TO OTHER TASKS	OTHER
93	Vette/GSFC	Level 1A	1d	X			
94	Vette/GSFC	Archiving	1d	X			
95	Sobieski	Privacy	1d	X			
96	Tagler/GSFC	Standards	1a	X		TASK 3	
97	Tagler/GSFC	SW Capture	1a	X	X	TASK 3	
98	Vette/GSFC	Wording	1d	X			
99	Gitelman	Automation	1d	X			
100	Tagler/GSFC	Des. Driver	1d	X			
101	Shenk/GSFC	Des. Driver	1d	X			
102	Sobieski	Des. Reqs.	1a			TASK 4	
103	Tagler/GSFC	Traceability	1a		X		
104	Tagler/GSFC	Data Rates	1a,1d	X	X		
105	Stocklin	NCC	1a	X		TASKS 3,4	
106	Tagler/GSFC	Wording	1d	X			
107	Maxwell/GSFC	Anc. Data	1a			TASK 3	
108	Teles/GSFC	TDRS Track	1d	X			
109	Shenk/GSFC	Cust. Facility	1a		X		
110	Tagler/GSFC	RDC	1a,1d	X		TASK 4	
111	Teles/GSFC	OTV/TDRS	1d	X			
112	Gitelman	Archiving	1a		X		
113	Vette/GSFC	Archiving	1d	X			
114	Shenk/GSFC	RDC	1d	X			

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NO.	ORIGIN	PROBLEM AREA	RESPONSE PLAN ITEM	DISPOSITION			
				TEXT CHANGE	CLARI- FICATION	DEFER TO OTHER TASKS	OTHER
115	Tagler/GSFC	Definition	1d	X			
116	Tagler/GSFC	Data Rates	1a		X		RID 168
117	Tagler/GSFC	Wording	1d	X			
118	Tagler/GSFC	Data Qual.	1d	X			
119	Maxwell/GSFC	Wording	1d	X			
120	Gitelman	Definition	1d	X			
121	Tagler/GSFC	Definition	1a,1d	X	X		
122	Tagler/GSFC	Archiving	1a,1d	X	X		
123	Tagler/GSFC	DFD's	1d	X			
124	Tagler/GSFC	Commands	1d	X			
125	Tagler/GSFC	Wording	1a,1d	X	X		
126	Koschmeder	Commands	1d	X			
127	Koschmeder	Anc. Data	1d	X			
128	Maxwell/GSFC	Wording	1a,1d	X	X		
129	Gitelman	Cust. SW	1d	X			
130	Tagler/GSFC	Scheduling	1a,1d	X	X		
131	Tagler/GSFC	Scheduling	1d	X			
132	Tagler/GSFC	Scheduling	1d	X			
133	Tagler/GSFC	Scheduling	1d	X			
134	Tagler/GSFC	Scheduling	1d	X			
135	Painter/GSFC	TDRS Sched.	1d	X			
136	Tagler/GSFC	Cmd. Mgt.	1a,1d	X	X		

SSDS TASK 1 REPORT - COMMENT ACTION/STATUS DISPOSITION LOG

NO.	ORIGIN	PROBLEM AREA	RESPONSE PLAN ITEM	DISPOSITION			
				TEXT CHANGE	CLARI- FICATION	DEFER TO OTHER TASKS	OTHER
137	Tagler/GSFC	GNC Planning	1d	X			
138	GSFC	FF Service	1a		X		
139	Tagler/GSFC	Power	1a,1d	X	X		
140	Tagler/GSFC	Proximity Ops.	1a,1d	X	X		
141	Westcott	Comm.	1a			TASKS 3,4	
142	Gitelman	Commands	1a		X		
143	Tagler/GSFC	Comm. Links	1a,1d	X			RID 166
144	Tagler/GSFC		1d	X			
145	Gitelman	Commands	1d	X			
146	Maxwell/GSFC	Des. Driver	1a,1d	X	X		
147	Tagler/GSFC	Des. Driver	1e	X			
148	Tagler/GSFC	Video	1d		X		
149	Stocklin	TDRS	1a	X		TASKS 3,4	
150	Gitelman	R/T Operations	1d	X			
151	Tagler/GSFC	R/T Operations	1a,1d	X	X		
152	Tagler/GSFC	DFD's	1a	X		TASK 4	
153	Tagler/GSFC	DFD's	1d	X			
154	Tagler/GSFC	DFD's	1d	X			
155	Tagler/GSFC	Reference	1a		X		
156	Tagler/GSFC	DFD's	1a,1d	X	X	TASK 4	
157	Shenk/GSFC	Question	1a		X		
158	Westcott	Hierarchy	1d	A-4			

SSDS TASK 1 REPORT - COMMENT ACTION/STATUS DISPOSITION LOG

NO.	ORIGIN	PROBLEM AREA	RESPONSE PLAN ITEM	DISPOSITION			
				TEXT CHANGE	CLARI- FICATION	DEFER TO OTHER TASKS	OTHER
159	Westcott	Wording	1d	A-5			
160	Gitelman	Traceability	1d	A-5			
161	Westcott	Traceability	1d	A-9		Task 4	
162	Westcott	TMIS I/F	3	X			
163	Westcott	Function 7	1d	A-9			
164	Westcott	Comm.	1d	A-9			
165	Westcott	Ops. Support	1d	A-9			
166	Gitelman	SSDS Scope	1d,5	X			
167	Gitelman	SSDS Scope	1d	X			
168	Gitelman	TDRS Support	1a			TASK 3	

RESPONSE PLAN ITEMS

Item Description

- 1a. Action taken or rationale provided for no action.
- 1c. Traceability Matrix
 - o A-5 Top Down
 - o A-6 Bottom Up
 - o Source Document Paragraph/Requirement Cross Index
- 1d. Text change/RID traceability.
- 1e. General Requirements (added into text as Section 5.3.8).
- 8a. Derived Functional Requirements Data Base A-5, A-6.
- 8b. Design characteristics for SSDS functions A-9.
- 7. SSP Build-up and Growth (A3-130-JPS-0524, dated 29 March 1985).
- 4a. POP, COP, POP/COP Control Functions A-4.
- 2b. SSDS Boundaries; I/F diagrams (A3-130-JPS-0381, dated 1 March 1985).
- 4b. Platform interfaces.
- 4c. DFDs for Platform.
- 4d. Requirements and design characteristics for Platform.
- 5. Inclusion of Free Flyer Control, Network Control, Data Distribution Network, and Alternative Communication links in the SSDS.